PREMIUM ENGRAVING MATERIALS

Engraving source book

Your source for all engraving materials, supplies and fabrication services

LASER SOLUTION

GRAVOGRAPH

The Gravograph total solution

A culture of excellence

Gravograph is a trademark of Gravotech Group, the world's leading manufacturer of marking solutions, offering a full range of equipment: rotary engraving machines, CO_2 and Fiber lasers, micro-percussion and scribing, engraving materials, consumables and services. For over 80 years, Gravograph has remained the industry benchmark thanks to its high quality equipment.

This success is built on three fundamentals:
- A primary focus on our customers' needs,
- Continually delivering state of the art solutions,
- Efficient customer service from over 900 employees worldwide.

Gravograph team members are based in over 40 countries around the world, working around the clock to provide you with the best possible solutions for your marking, engraving and cutting needs as quickly as possible.

The Gravograph difference is founded on:
- A complete solutions approach: the Gravograph product offer lends itself to a full range of personalisation, signage and traceability applications,
- A complete technology solution: machines, software, accessories and consumables,
- A complete technical support solution: readily available field and telephone technical support,
- A complete training solution: training on-site or on Gravograph premises, phone support from engraving experts.

The comprehensive Gravograph product line includes:
- The world's largest and most innovative range of CNC machines,
- State of the art CO_2 and Fiber laser engraving systems,
- Versatile micro-percussion marking systems,
- Innovative software dedicated to the engraving industry, designed to optimise Gravograph machines,
- The most comprehensive range of materials and engravables on the market,
- Responsive in-house fabrication services.

Gravograph develops and markets the world's highest quality and most durable marking solutions, exceeding engraving industry standards for product and service performance. Our quality management system ensures that our products and services are continuously improved, and that all of our team members are dedicated to ensuring the best possible service.

Gravotech

Contents

Our engraving materials: guarantee and commitment

PREMIUM ENGRAVING MATERIALS

by

At Gravotech, quality is much more than a norm or a concept: it is a state of mind driven by continuous improvement.

This explains why most of our worldwide-known brands such as Gravoply™, Metallex™, Gravoglas™ 2-Plex™ or Gravotac™, have become synonymous of quality and are a reference for competitors to match.

We are committed to respect these values raised over the past 60 years and do our utmost to meet your most demanding requirements.

To do so, we implemented a Gravograph Quality Charter, which covers a number of technical characteristics that we want respected for our products and ranges:

GRAVOGRAPH

THE CHOICE IN EACH PRODUCT RANGE

Our wide material range included over 900 references in stock, specially developed for engraving and cutting. "Surface" or "Reverse" engraving, laser marking or cutter engraving, all our ranges of plastic, metal or stratified materials are available in a spectrum of colours, thicknesses between 0.09 mm and 10 mm or .004" and .40" according to the products, and various finishes (matt, glossy, satin, textured, metallic, brushed). The great majority of our materials is also compatible for digital printing. **For you, this is the guarantee to find the right product for your application.**
Thanks to our production units in the United States and in Europe, we are able to offer you custom-made solutions (colour, finish, thickness, etc.), even for small quantities. Make sure you contact us!

OPERATING RECOMMENDATIONS AND USE CONDITIONS

Gravotech warrants that its product comply with its technical specification within normal condition of use, without any other warranty including without being limited to any other warranty of merchantability, performance or suitability.

Gravotech warranty covers consumables product for a one (1) month period as from invoice date. The consumable warranty only covers manufacturing defect but scratch and colorimetric variation are expressly excluded from the warranty coverage.

Technical specifications result from data and technical report raised from suppliers or from Gravotech or external independent laboratory studies. Consequently each end user shall perform appropriate testing under real conditions of use to ensure consistency and adequacy of the product to its intended specific purpose and needs. Out of standard conditions of use as well as harsh conditions such as for example UV, hygrometry, salinity or temperature specifics shall be taken into account to avoid any product deterioration.

End User shall be liable regarding its own testing results and therefore its final decision regarding suitability of the product according to Gravotech specifications and recommendation.

RAW MATERIALS

Our materials are issued from a selection of the best suppliers worldwide, capable of offering the highest guarantees in terms of organisation (ISO*).

Our ABS and acrylics are pure and selected among the best grades.

Each component is subject to careful selection process taking into consideration normative and environmental obligations (RoHS**, REACH***).

For you, this guarantees the respect of all obligations and requirements demanded by your customers. We will provide written statements on simple request.
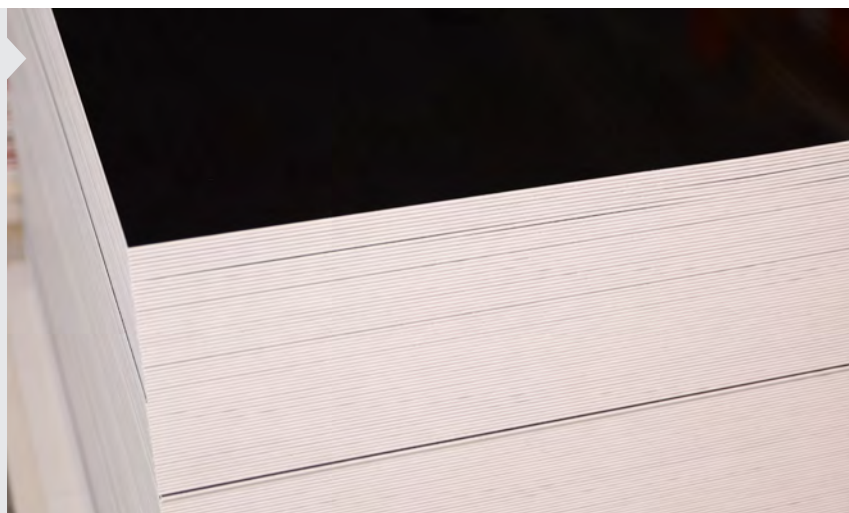
COLOURS

Colour rendering and consistency from one production batch to another are particularly sought after by all graphic arts professionals. UV resistance is an obligation for materials in contact with light, especially for outdoor applications. To enable you to commit in total safety, we set our expectations beyond market standards. Our components selection as well as sourcing decisions are made accordingly. Our operational teams make regular spectral colorimeter checks to measure colour differences: we compare the light reflected on a random sample with our "Golden Sample". This measurement highlights colour discrepancy (or "ΔE") and opacity. **For you, this guarantees irreproachable colour and best hold of the material in time.**

SIZES, THICKNESS AND FLATNESS

Each material sheet is subject to tight squaring at 0.25 mm/metre (.01"/yd).
Generally, our plastic material sizes are even fairly higher than the dimensions announced. **For you, this is the guarantee to benefit from the entire format actually purchased, even if the plate is clamped on the edges.**

The thickness of the different layers making up our materials is finely calibrated, and our recipes are perfectly mastered and executed by our engineers and technicians. For Gravoply™ 2, Metallex™, Gravoply™ Laser and Gravoply™ Ultra: the top coat is only a few microns thin. **For you, this is the possibility to achieve extremely fine and aesthetic engraving, minimise the production of chips or fumes and take advantage of your engraving machine's highest speed and productivity, be it mechanical or laser powered.**

Gravoply™ 1, Gravoglas™ 2-Plex™ and even Gravotac™: different layers calibrated at 250 microns are assembled by hot pressing in our workshops. Our products are not co-extruded, as this technique cannot guarantee regularity in thickness or material flatness. To obtain the best possible flatness, this "laminating" phase is made in very small batches, and even sometimes by the unit! **For you, this is the certainty to achieve accurate and regular depth engraving, as well as quality milling jobs on the entire surface of the material sheet.**
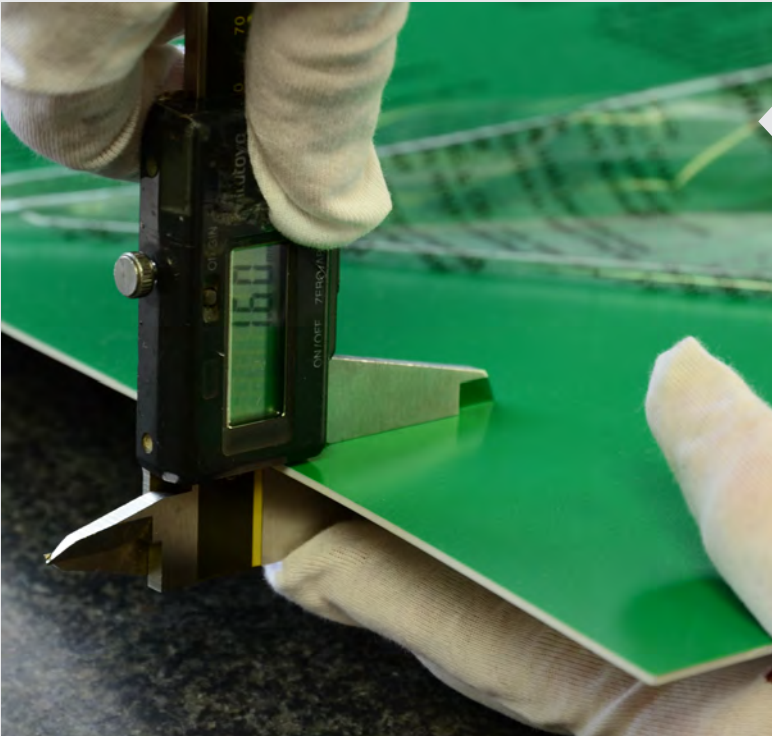
PROTECTION, PACKAGING, TRACEABILITY

Our materials are protected individually by a "Gravograph"-personalised, resistant semi-adhesive protection film. This ensures that engraved or milled surfaces are preserved from pollution or alteration.
Each material sheet is also labeled with its reference, designation and production batch number. This ensures our Quality assurance system has the traceability information that is required in case of defect.
Our packaging products are adapted to transport constraints all over the world and have proven their sturdiness. **For you, this is the guarantee to buy an original product and benefit from our material's "Premium" quality until it reaches your workshop.**

The particular care we take in terms of product traceability enables us to consider our customers and partners' feedback and therefore continue to improve, for the benefit of all.

This is what we call continuous improvement, the drive of our organisation and spirit of our company.

* ISO: International Standard Organisation
** RoHS: Restriction of the use of certain Hazardous Substances
*** REACH: Registration, Evaluation and Authorisation of Chemicals substances

Promotion tools: Gravograph can help you!

Gravograph offers a variety of Marketing Tools to help you select and promote our engraving materials.

PREMIUM ENGRAVING MATERIALS

by

GRAVOGRAPH

CATALOGUE

E-CATALOGUE

WEBSITE

SWATCH BOOKS : CLASSY VERSION

Ref. 71930

The necessary tool to choose precisely what you need from real material samples.

Including Plastics Laser/Rotary; Plastics Rotary; Metallics; in addition to the real material sample, it also presents the applications, benefits, specifications & capabilities

Flyers: pages of the Classy version available individually.

Plastics Laser/Rotary	
Gravoply™ Laser	71943
Gravoply™ Ultra p.1+2	71944
Gravoply™ 2	71945
Gravoglas™ 1	71946
Acrylic	71947
Gravotac™ Exterior	71948
Flexilase™	71949
Gravostrat™	71950
Rubbalase™	71951

Plastics Rotary	
Gravoply™ 1 p.1+2+3	71952
Gravofoil™ / Gravoply™ 3C	71953
Gravoglas™ 2Plex™ Surface p.1+2	71954
Gravoglas™ 2Plex™ Subsurface p.1+2	71955
Gravotac™	71956

Metallics	
Gravolase™ Metallics	71957
Metallex™	71958
Gravostral™	71959
Gravoxal™	71960
Gravoxal™ Premium	71961
Gravoxal™ (US)	71965
Gravobrass™ / Gravometall™	71962
Colored Aluminum / Trophy Brass / Coloured Steel	71963
AlumaMark® / DuraBlack®	71964

SWATCH BOOKS : NOMAD VERSION

The necessary tool to choose precisely what you need from real material samples.

In plastic folders

- Plastics Laser/Rotary: Ref. 71932
- Plastics Rotary: Ref. 71931
- Metallics: Ref. 71933

CUSTOM FABRICATION SERVICES

Discover our custom fabrication capabilities from real engraved samples.

Ref. 68343

INDUSTRY SOLUTIONS

Discover our industry solutions from real engraved samples.

Ref. 74699

DISPLAY KIT

Set of displays presenting our entire range of engraving materials thanks to real samples. Can be wall-mounted or used as trestles in your shops or showrooms.
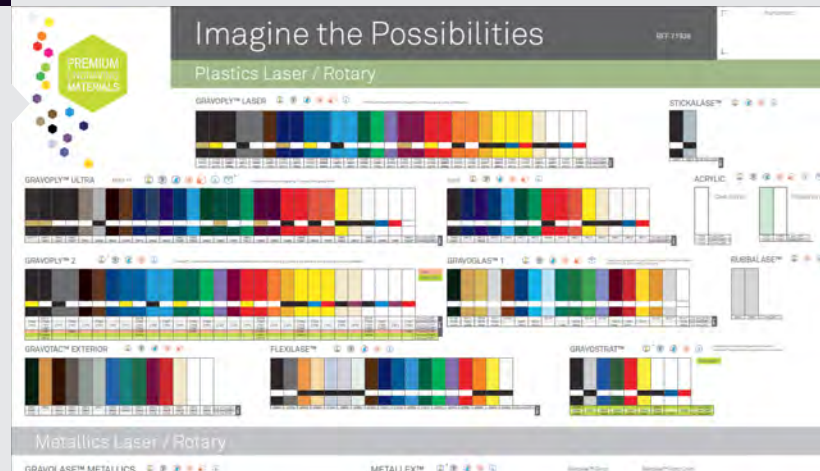
On request

POSTER

Wall poster with overview of our whole range of materials.

Ref. 71938

Custom fabrication services

Save time and money by using our wide range of fabrication services which will meet your most demanding needs.

CUT-TO-SIZE

Custom fabricated shapes made to your specifications. Shape and size on demand (rectangle, circular, oval, strips, special shapes).

Signs with concave corners

Circular blanks

Cutting

Oval blanks

FINISHING

Bevelling

Bevelling is the cutting of an attractive angular edge to create a border. Our standard bevel is at 45° angle.

Drilling holes

To accommodate your mounting needs in plastic and metal.

Holes are positioned according to your specifications.
When measuring holes, follow the illustrated example below.

1. From the centre of one hole to the centre of the other hole.
2. From the centre of the hole to the top edge of the material.
3. From the centre of the hole to the side edge of the material.
4. Diameter of any counter-sunk holes to be drilled (for mounting materials and wall holders with flat head screws).

Rounded / concave corners

We offer a wide selection of different radial for corners.

Bending

Plastic materials (except phenolic) can be bent into stand-up display signs, badges, etc. Maximum length of the bend is 500 mm (20").

BACKING

Adhesive

We can apply adhesive backing for badges, nameplates, strips and sheets. Adhesive backing is applied before cutting material.

Magnetic

For temporary mounting of info tags on metal shelves, we can apply magnetic backing to plates, strips and sheets.
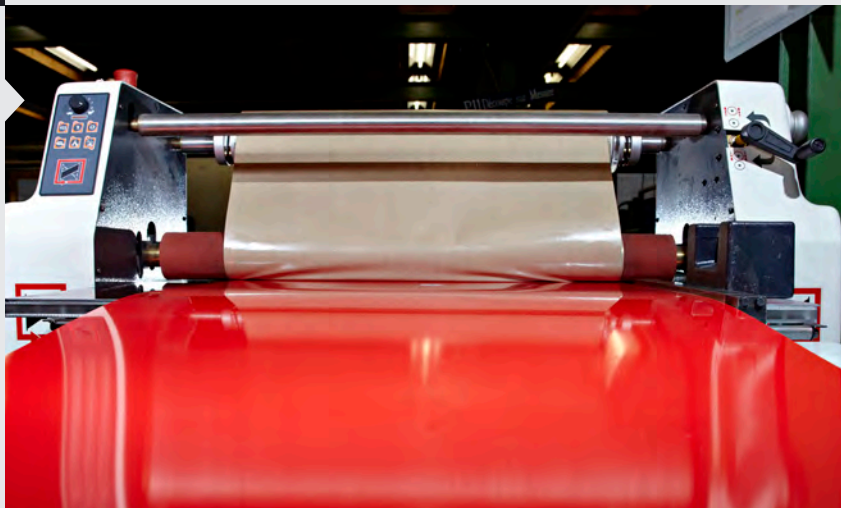
BADGES

We can custom fabricate your plastic or brass sheet badge. Specify: shape, size and material, fastener, fused, cemented or bonded hardware; rounded or square corners; bevel or no-bevel finished edges.

Hot-stamping / Silk-screen / Digital printing
To add a coloured logo or inscription on badges, ID plates, etc.

Types of fasteners for heat fusing in our workshop

Quotation

For all these services, please ask your Gravograph partner for a quotation!

Lead-time

Fabrication times are only estimates, and may vary according to production load.

Return policy

All fabrication orders are non-returnable due to their custom nature. Please ensure that you provide accurate information when placing your fabrication order.

Custom materials on demand

CANNOT FIND THE PLASTIC PRODUCT YOU ARE LOOKING FOR?

Gravograph is able to supply proprietary material based on your specifications.

CHOOSE:

Colour matching against RAL/Pantone®

More than **70** surface colours

Around **15** core colours

COLOUR

Matt
Glossy
Satin
Textured

FINISH

CREATE YOUR OWN MATERIAL !

Double-sided material

CONSTRUCTION

20 thicknesses *
from 0.09mm (.004")
to 10mm (.40")

1-2-3-Ply material

* Depending on product line.
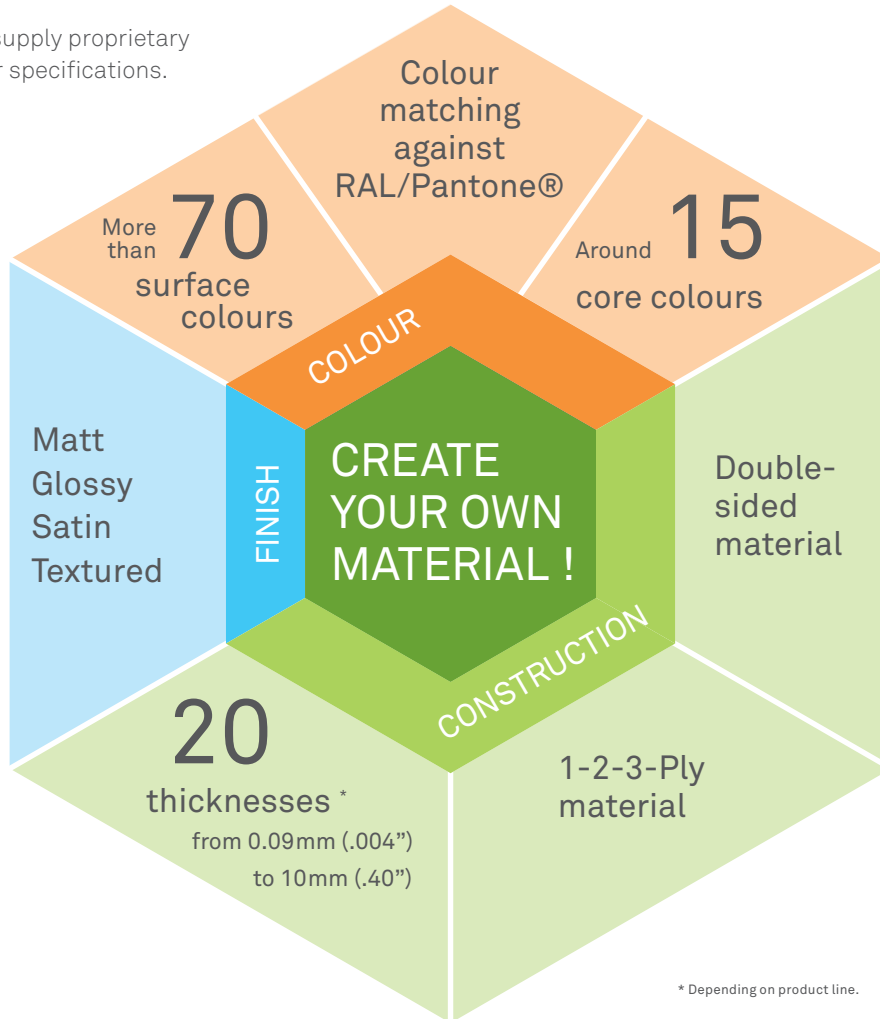
COLOUR MIXING

Gravograph provides any colours combination!

Choose engraving sheets in the colour combination of your choice. Just mix any existing surface colour with any existing core colour for the following material ranges:

- Gravoply™ Laser
- Gravoply™ Ultra
- Gravoply™ 2
- Flexilase™
- Gravoply™ 1
- Gravoglas™ 2-Plex™
- Gravolase™ Metallics
- Metallex™

COLOUR MATCHING

Do you require a specific surface colour (to match your graphic charter, logo, etc.)?

Indicate a RAL, Pantone® or NCS®© code and we will apply this colour over the ABS or acrylic base of your choice.

DOUBLE-SIDED MATERIAL

Looking for double-sided material?

Contact us and we will produce your double-sided sheets in:

- Gravoply™ Laser
- Gravoply™ Ultra
- Gravoply™ 2
- Gravoply™ 1

- Gravoglas™ 2-Plex™
- Gravolase™ Metallics
- Metallex™

Same surface colour on both sides

surface colour
core colour
surface colour

Different colour on each side

surface colour
core colour
surface colour

Examples:

purple
yellow
black

glossy silver
white
red
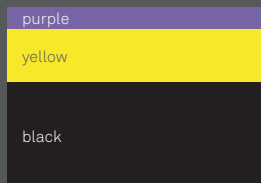
GRAVOPLY™ 3C

Our Gravoply™ 3C range offers the most used colours. However we can produce up to 1,500 colour combinations on demand.

SPECIFIC THICKNESSES

Your application requires a specific material thickness?

Let us know your requirements and we will produce a material adapted to your needs.

SURFACE FINISH

Choose from our standard matt, glossy, satin or textured surface finishes; we can apply them to the majority of our plastic materials.
Examples:
- Gravoply™ Laser red/white (49988) has a matt finish but can be manufactured with a glossy finish on request.
- Gravoply™ Ultra blue/white (18990) has a matt finish: ask for it with a textured finish.
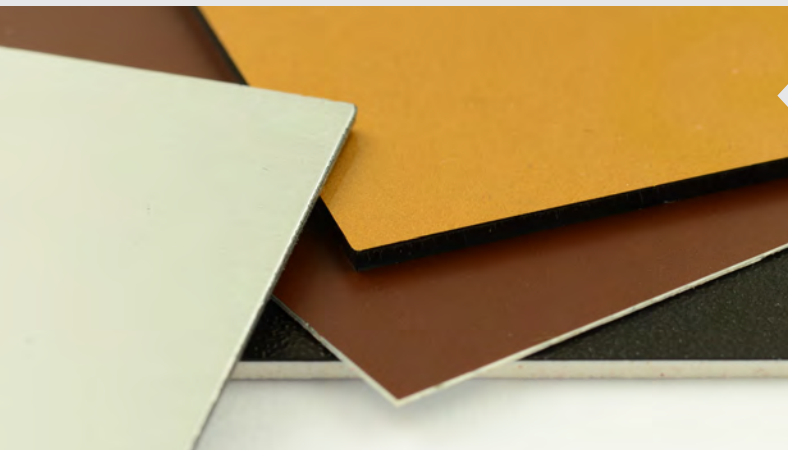
SPECIFIC CHARACTERISTICS

You are looking for a product to meet very specific characteristics, for a particular application and environment? Describe your requirement and we will find the best suited solution to your application.

Quotation

For all these services, please ask your Gravograph partner for a quotation!

Lead-time

Fabrication times are only estimates, and may vary according to production load.

Return policy

All fabrication orders are non-returnable due to their custom nature. Please ensure that you provide accurate information when placing your fabrication order.

Gravograph

Selection guide

Plastics — Laser / Rotary
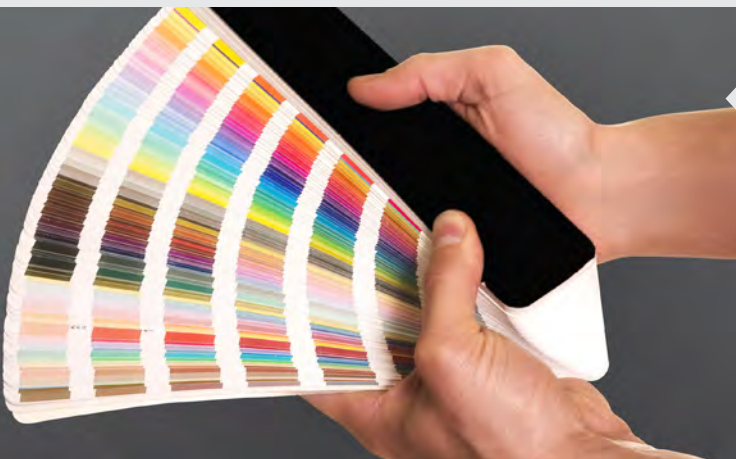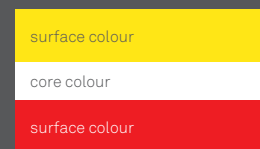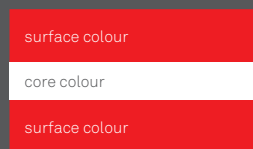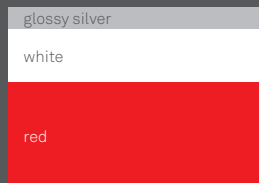
	Gravoply™ Laser	Gravoply™ Ultra	Gravoply 2	Gravoglas™ 1	Acrylic	Gravotac™ Exterior	Flexilase™	Stickalase™	Gravostrat™	Rubbalase™	Gravoply™ 1
Engraving system											
CO₂ laser	■	■	■	■	■	■	■	■	■	■	
Fibre laser											
Rotary	■	■	■	■	■	■	■		■		■
UV Print	■	■	■	■	■	■	■				■
Applications											
Funeral plates: urns plates - Cofflin plates - Head stones .../...			■	■			■	■			■
ADA / DDA / Signs with Braille dots						■					
Small labels: Badges - Door plates - Trophy plates - Luggage tags .../...	■	■	■				■	■			■
Small signs: Badges - Door plates - Sport tags - Awards - Museum art tags .../...	■	■	■		■		■	■			■
Safety signs - Technical signs	■	■	■						■		■
Large Signs - Flow charts - Directories - Location maps - Directions - Professional plates	■	■	■	■	■	■					■
Signs - Letter cut-outs (signage / routing / prototyping) - POP displays - Acrylic work				■	■		■				
Signs - Metal Cut-outs (signage / routing / prototyping)											
Rating plates (mass production) - Industrial ID plates								■			
Electrical plates - Push-button, cable tags	■	■	■								■
Front panels / Flow charts	■	■	■	■					■		■
Rubber stamps										■	
Specifications — Surface finishing											
Matt	■	■	■		■	■	■	■		■	
Brushed							■				
Glossy				■	■		■		■		
Satin		■									■
Textured											
Specifications — Composition											
Acrylic	■	■		■	■	■	■	■			
ABS			■								■
Aluminium											
Brass											
PVC											
Phenolic									■		
Rubber										■	
Capabilities											
Surface engraving	■	■	■		■	■	■	■	■	■	■
Subsurface engraving		■		■	■	■					
CO₂ laser cutting	■	■		■	■	■	■	■		■	
Interior	■	■	■	■	■	■	■	■	■	■	■
Exterior	■	■		■	■	■					
Shear	■	■	■				■	■			■
Saw		■	■	■	■	■			■		■
Silk-screen	■	■	■	■	■	■		■			■
Hot-stamp	■	■	■	■	■	■					■
Heat bending	■	■	■	■	■	■					■
Scratch resistant		■	■			■			■		■
Flexible	■	■	■			■	■	■		■	■
Break resistant		■	■		■	■		■		■	■
UV resistant	■	■		■		■					
Min. temperature	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-60°C (-76°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)
Max. temperature	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	200°C (392°F)	180°C (356°F)	80°C (176°F)	80°C (176°F)
Page	16	18	20	21	22	23	24	25	26	27	28

Gravoply™ 1 Design - Matt Decor	Gravoply™ 1 Design - Translucent	Gravoply™ 3C	Gravofoil™	Gravoglas™ 2-Plex™ Surface	Gravoglas™ 2-Plex™ Subsurface	Gravotac™	Gravolase™ Metallics	Metallex™	Gravostrat™	Gravoxal™	Gravobrass™ Exterior	Gravometall™	Colored Aluminum	Trophy Brass	AlumaMark®	DuraBlack®
							■	■		■					■	■
													■	■		
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
■	■	■	■	■	■	■	■	■	■	■	■	■			■	
			■	■	■		■	■	■			■				
						■										
■		■	■				■	■	■	■		■	■	■	■	■
■	■	■	■				■	■	■	■	■	■	■	■	■	
		■	■													
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				■	■	■										
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■		■	■	■	■	■	■	■	■	■	■			■		■
							■	■	■							
				■	■		■	■		■	■		■	■	■	
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				■	■		■			■	■					■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■								
■	■	■	■		■	■	■	■								
■	■	■			■					■	■			■		
■	■	■	■			■	■	■							■	
■	■	■	■			■			■	■	■	■	■	■	■	■
			■	■	■		■			■						■
-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)
80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (356°F)	200°C (392°F)	370°C (700°F)	200°C (392°F)	100°C (212°F)	370°C (700°F)	230°C (450°F)	370°C (700°F)
29	29	30	31	32	34	36	37	38	39	40	42	43	44	45	46	47

To quickly identify and select the right material for your application needs, look out for the symbols below indicating the main features of each Gravograph material range:

CO₂ Laserable

Generally applies to acrylic core materials as well as rubber, which can be CO_2 laser engraved and cut. Also suitable for coated or anodised metals. ABS materials can also be CO_2 lasered, although cutting results and lasering quality may vary according to materials and/or colours. Apart from a few exceptions, most CO_2 laserable materials are also rotary engravable.

Fiber Laserable

Generally applies to metals, either bare or coated. A wide variety of plastics can also be fiber lasered.

Rotary engravable (with a rotating cutting tool)

The most versatile engraving technology. Suitable for most plastic materials and metals.

UV Print

UV LED printing material.

Indoor use

Material designed for indoor use which does not require resistance to UV light or changes in the climate.

Outdoor use

Within the limit of technical specifications provided by Gravotech and compliance to standard conditions of use, materials are designed to be resistant to climate and UV variation without significant alteration to its features. Due to wide variety of use conditions, Gravotech cannot assert material shelf-life.

Surface engraving

1-ply, 2-ply or 3-ply materials are either lasered or engraved to expose the core of the material, thereby giving a colour contrast between cap (surface layer) and core (base colour).

Subsurface engraving (also known as reverse engraving)

Applies to 1-ply and 2-ply clear base materials.
The material is lasered or engraved from the back.
Once lasered or engraved, the characters and logos can be back-painted to achieve aesthetic colour contrast.

PREMIUM ENGRAVING MATERIALS

No clamping, no tape, no vacuum table

A real **time saver** for your engraving and cutting jobs.
- All kinds of plastic or metallic materials in variable thickness **secured effortlessly**
- Also suitable to hold small items: medals, tags, labels, etc.
- Ideal for **engraving** and **cutting** depending on materials
- **No oily residues** after use

The indispensable fixing accessory for your daily jobs

Flexible material placed on your engraving / marking table* to maintain the material to be engraved or cut into place.

* For IM4, M20, IS200 & M40 use a support table, see below for more informations.

Easy to use

1. Place Gravogrip™ on your table

2. Position the material and press down

3. Engrave!

Gravogrip™ sizes

Choose the size that will best suit your machine's working area.

67252	610 x 610 mm (24" x 24")
71052	610 x 305 mm (24" x 12")
45696	310 x 215 mm (12".20 x 8.46")
71053	305 x 200 mm (12" x 7.87")
71054	225 x 80 mm (8.85" x 3.15")
70996	120 x 100 mm (4.72" x 3.93")
72027	120 x 80 mm (4.72" x 3.15")
71056	cut-to-size on request

See also p.112 *Jigs & Holding Devices*.

For smaller size machines, **use one of the support tables*** specially designed to that effect.

	Gravogrip™ support table*	Delivered with replacement mat
72024	for IM4 machines	ref. 72027 (120 x 80 mm) (4.72" x 3.15")
70997	for M20/M20XL machines	ref. 70996 (120 x 100 mm) (4.72" x 3.93")
71116	for IS200 machines	ref. 71054 (225 x 80 mm) (8.85" x 3.15")
45697	for M40 machines	ref. 45696 (310 x 215 mm) (12.20" x 8.46")

* All support tables delivered with one piece of Gravogrip™ to fit.

Minimum maintenance

- Cleaning with soapy water

BENEFITS

- UV stable
- Excellent for interior and exterior signage
- A wide range of colours
- Matt finish
- Microthin surface layer for detailed engraving
- Reduce inventory with one material for rotary, laser, indoor and outdoor needs

APPLICATIONS

Architectural signage, industrial signage, labelling, legend plates...

SPECIFICATIONS

Finish	Matt
Composition	Acrylic
Engraving depth	0.1 mm (.004")
Full sheet	1220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	■
Saw	-
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	-
Flexible	■
Break resistant	-
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

The most versatile plastic material: indoor, outdoor, laser and rotary engraving and cutting. One product, one stock, many applications.

You can mix any surface and any core colours on demand.

For custom colours, see Custom materials on demand p.10.

CO₂	Rotary	UV Print	Indoor	Outdoor	Surface

Flexibility and performance for indoor and outdoor applications

surface / core colour		2-ply 0.8 mm (1/32")	1.3 mm (.050")	1.6 mm (1/16")
white / red		51047	51006	70005
white / blue		51057	51011	80763
white / black		51017	49971	69991
almond / black		51022	49978	80764
yellow / red		51048	51007	70006
yellow / blue		51058	51012	80765
yellow / black		51018	49973	69992
dark yellow / black		51019	49977	80766
orange / white		51035	51005	80767
orange / black		51020	51001	80768
red / white		51034	49988	69995
red / yellow		51055	51009	80769
burgundy / white		51043	49997	70004
burgundy / gold		51062	51016	80770
purple / white		67005*	67006*	80771*

*Subject to premature colorfading

Gravograph

PREMIUM ENGRAVING MATERIALS

CO₂ Rotary UV Print Indoor Outdoor Surface

Flexibility and performance for indoor and outdoor applications

surface / core colour		2-ply		
		0.8 mm (1/32")	1.3 mm (.050")	1.6 mm (1/16")
apple green / white		51042	49996	70003
pine green / white		51039	49995	70002
sky blue / white		51037	49990	69997
sky blue / black		51021	49979	69993
blue / white		51036	49989	69996
blue / yellow		51056	51010	80772
air force blue / white		51038	49991	69998
air force blue / gold		51061	51015	80773
brown / white		51044	49993	70000
grey / white		51046*	49992*	69999*
grey / black		51023*	49974*	80774*
black / white		51033	49987	69994
black / yellow		51049	51008	80775
black / gold		51060	51014	80776

*Subject to premature colorfading

The dimensions indicated represent our minimal commitment.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

Gravograph

BENEFITS

- UV stable
- Excellent for interior and exterior signage
- A wide range of colours
- Matt finish
- Microthin surface layer for detailed engraving
- Reduce inventory with one material for rotary, laser, indoor and outdoor needs

APPLICATIONS

Architectural signage, industrial signage, labelling, legend plates...

SPECIFICATIONS

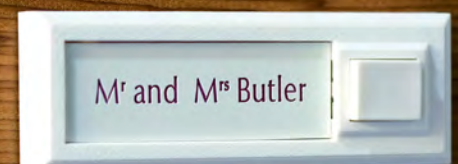|	
Finish	Matt
Composition	Acrylic
Engraving depth	0.1 mm (.004")
Full sheet	1220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	▪
Exterior	▪
Shear	▪
Saw	-
Silk screen	▪
Hot stamp	▪
Heat bending	▪
Scratch resistant	-
Flexible	▪
Break resistant	-
UV resistant	▪
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

The most versatile plastic material: indoor, outdoor, laser and rotary engraving and cutting. One product, one stock, many applications.

You can mix any surface and any core colours on demand.

For custom colours, see Custom materials on demand p.10.

GRAVOPLY™ ULTRA

BENEFITS

• Laser engraving and cutting
• Excellent for interior and exterior signage
• Unique 0.05mm (.002") cap layer for detailed engraving
• Excellent for photo lasering
• Thickness 0.25 mm (.01") with backing adhesive on demand.

APPLICATIONS

Badges, awards plates, interior and exterior signage

SPECIFICATIONS

Finish	Matt
Composition	DR Acrylic
Engraving depth	0.1 mm (.004")
Full sheet	1220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	■
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	■
Break resistant	-
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Laser and rotary engraving, a versatile material for indoor and outdoor applications.

For custom colours, see Custom materials on demand p.10.

CO₂ · Rotary · UV Print · Indoor · Outdoor · Surface · Subsurface *

Matt **

surface / core colour	2-ply 0.5 mm (.020")	1.6 mm (1/16")		surface / core colour	2-ply 0.5 mm (.020")	1.6 mm (1/16")
clear / white	18965*	19009*		pine green / white		29491
white / red	18997			sky blue / white	70955	70953
white / azure blue	18996			blue / white	18952	18990
white / black	18946	18984		air force blue / white		29492
almond / black		29500		navy blue / white		29494
yellow / black	18955	18993		royal blue / white		19015
orange / white		19000		brown / white		29495
orange / black		29499		chocolate brown / white		29493
red / white	18949	18987		light grey / black		29496
red / black		29498		taupe / white		29501
burgundy / white		18980		clear / black	18962*	19006*
burgundy / gold		18999		black / white	18943	18981
apple green / white	18970	19012		black / gold	18976	19004
forest green / white		19001		glossy black / gold	18973**	
forest green / gold		18998				

* Suitable for subsurface engraving.
** Except 18973 glossy finish.

Gravograph

BIOHAZARD WASTE

Anahita

Rosa MULTIFLORA

GRAVOPLY™ ULTRA

PREMIUM
ENGRAVING
MATERIALS

| CO₂ | Rotary | UV Print | Indoor | Outdoor | Surface |

Satin

surface / core colour	2-ply 1.6 mm (1/16")	2.4 mm (3/32")
white / red	29514	
white / azure blue	29518	
white / black	29507	
almond / black	29531	
yellow / black	29511	
orange / white	29521	
red / white	29512	
red / black	29529	
apple green / white	29513	
forest green / white	29515	
sky blue / white	70954	
blue / white	29510	
air force blue / white	29522	29688
royal blue / white	29519	
black / white	29508	29687

BENEFITS

• Laser engraving and cutting
• Excellent for interior and exterior signage
• Unique 0.05mm (.002") cap layer for detailed engraving
• Excellent for photo lasering
• Thickness 0.25 mm (.01") with backing adhesive on demand.

APPLICATIONS

Badges, awards plates, interior and exterior signage

SPECIFICATIONS

Finish	Satin
Composition	DR Acrylic
Engraving depth	0.1 mm (.004")
Full sheet	1220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	▪
Exterior	▪
Shear	▪
Saw	▪
Silk screen	▪
Hot stamp	▪
Heat bending	▪
Scratch resistant	▪
Flexible	▪
Break resistant	-
UV resistant	▪
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Laser and rotary engraving, a versatile material for indoor and outdoor applications.

For custom colours, see Custom materials on demand p.10.

The dimensions indicated represent our minimal commitment.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

GRAVOGRAPH

M' and M'ˢ Butler

PREMIUM ENGRAVING MATERIALS

BENEFITS

- Microthin surface layer
- Perfect for small characters and detailed logos
- Gravoply™ 2 Gloss has an extra durable, scratch resistant, glossy cap

CO₂	Rotary	UV Print	Indoor	Surface
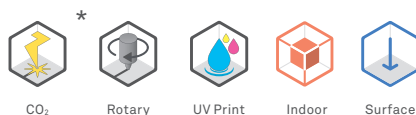
APPLICATIONS

Badges, identification plates, interior signage

SPECIFICATIONS

Finish	Matt
Composition	ABS
Engraving depth	0.1 mm (.004")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	∎
Exterior	-
Shear	∎
Saw	∎
Silk screen	∎
Hot stamp	∎
Heat bending	∎
Scratch resistant	∎
Flexible	∎
Break resistant	∎
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

You can mix any surface and core colours on demand. Double-sided products are also available.

For custom colours, see Custom materials on demand p. 10.

Gloss
Double-sided

surface / core colour	0.5 mm (.020")	0.8 mm (1/32")	1.5 mm (1/16")	2.4 mm (3/32")	1.5 mm (1/16") Gloss	1.5 mm (1/16") Double-sided	3.2 mm (1/8")
white / red		21857	21928		23981		
white / burgundy		21874					
white / azure blue		21841	21908	21973			
white / black	53218	21850	21919	21982	23977	22010	
almond / burgundy		29709					
almond / black		21855	21926				
yellow / red		21845	21913				
yellow / azure blue		21828	21896				
yellow / black		21863	21936	21995	23982	22013	
dark yellow / black			21925				
orange / white			52205				
red / white	53219	21851	21921	21983	23978	22011	22016
red / yellow			21910				
burgundy / white			21932				
purple / white			67007				

surface / core colour	0.5 mm (.020")	0.8 mm (1/32")	1.5 mm (1/16")	2.4 mm (3/32")	1.5 mm (1/16") Gloss	1.5 mm (1/16") Double-sided	3.2 mm (1/8")
apple green / white		21838	21905				
pine green / white		21865	21938	21997	23983		
pine green / yellow			21916				
sky blue / white		21861	21934				
sky blue / black		21827	21895				
blue / white	53220	21852	21923	21984	23979	22012	
blue / yellow			21911				
air force blue / white			21907				
brown / white		21858	21930				
chocolate brown / white			21876				
grey / white		21856	21927		23980		
grey / black			21915				
black / white	53217	21849	21917	21981	23976	22009	29732
black / yellow		21866	21940				

* Gravoply™ 2 products have a laserable foil cap but engraving colour results can vary according to the reference. Vector cutting is not recommended.

GRAVOGRAPH

GRAVOGLAS™ 1

PREMIUM ENGRAVING MATERIALS

CO₂	Rotary	UV Print	Indoor	Outdoor	Subsurface

surface / backing colour	2-ply		
	1.5 mm (1/16")	3.0 mm (1/8")	5.0 mm (.20")
clear / white	18141*	18193	18264
clear / light grey	18177*		
clear / golden yellow	18130*		
clear / yellow		18217	
clear / red		18201	18267
clear / burgundy		18232	18287
clear / purple	18132*		
clear / moss green	18136*		
clear / garden green		18229	18285
clear / green			18282
clear / light blue	18179*		
clear / sky blue		18214	18273
clear / blue		18207	18270
clear / brown	18134*		
clear / silver	18171	18244	18293

surface / backing colour	2-ply		
	1.5 mm (1/16")	3.0 mm (1/8")	5.0 mm (.20")
clear / gold	18168	18235	18290
clear / old gold	18174	18252	18296
clear / black	18138*	18183	18261

* Conventional colours for the identification of pipes in the industrial sector (AFNOR NF X. 08-002 and INRS ED 88 norms).

BENEFITS

- Laser engraving and cutting
- Excellent UV resistance
- A fine silk-screened layer
- Resistant to chemical agents
- Subsurface engraving: produce multi-colour signage with paint fill
- Easy to keep surface clean
- Interior and exterior use

APPLICATIONS

Interior and exterior signage, professional name plates

SPECIFICATIONS

Finish	Glossy
Composition	Acrylic
Engraving depth	0.2 mm (.008")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	▪
Exterior	▪
Shear	-
Saw	▪
Silk screen	▪
Hot stamp	▪
Heat bending	▪
Scratch resistant	▪
Flexible	-
Break resistant	-
UV resistant	▪
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Excellent material for both rotary and laser engraving.

You can use Gravograph recommended paint to colour any Gravoglas™ 1 subsurface engraving. See p.55.

For custom colours, see Custom materials on demand p.10.

GRAVOGRAPH

BENEFITS

- Laser engraving and cutting
- Glossy or frosted finish
- Excellent for clear signage
- Laser and rotary engravable
- Interior and exterior use

APPLICATIONS

Interior and exterior signage applications

SPECIFICATIONS

Finish	Glossy for clear acrylic, Matt for frosted acrylic
Composition	Acrylic
Engraving depth	-
Full sheet	1 000 mm x 500 mm (39" x 19")
Half sheet	-
Quarter sheet	-
Other size	-

CAPABILITIES

Interior	▪
Exterior	▪
Shear	-
Saw	▪
Silk screen	▪
Hot stamp	▪
Heat bending	▪
Scratch resistant	▪
Flexible	-
Break resistant	▪
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Discover frosted Acrylic for a modern finish, fingerprint and scratch resistant acrylic.

CO₂ Rotary UV Print Indoor Outdoor Surface Subsurface

Clear acrylic

	3 mm (1/8")	5 mm (.20")	10 mm (.40")
clear	71316	71317	71318

Frosted acrylic

	5 mm (.20")	8 mm (.31")
white frost	71319	71320
green frost	71321	71322

GRAVOGRAPH

Printed colours for indication only. Cannot serve as a substitute for real material sample.

PREMIUM ENGRAVING MATERIALS

CO₂   Rotary   UV Print   Indoor   Outdoor
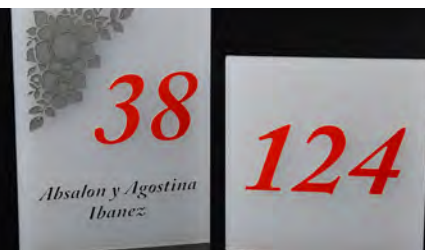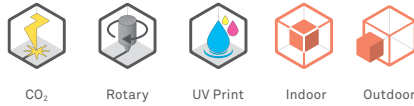
	1-ply		
	0.8 mm (1/32")	1.6 mm (1/16")	3.2 mm (1/8")
clear	29918	29935	72083
white	29919	29936	31237
almond	29921	29938	32295
red	29922	29939	31700
burgundy	29923	29940	31738
pine green	29927	29944	31837
teal	29933	29903	
azure blue	29928	29945	31406
silver	29931		
silver grey	29929	29946	32187
slate	29930	29947	32277
chocolate brown	29926	29943	31648
gold	29932		
black	29920	29937	31257

BENEFITS

- Interior and exterior use
- Profile available with or without adhesive backing
- Cut with laser or rotary machines

APPLICATIONS

DDA & ADA compliant, tactile signage

SPECIFICATIONS

Finish	Matt
Composition	Impact modified acrylic
Engraving depth	-
Full sheet	1220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	-
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	■
Break resistant	■
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

The ideal product for Braille and tactile signs cut with your laser machine. UV stable.

The Gravotac™ process :

Adhere 0.8 mm (1/32") profile material to 1.6 mm (1/16") or 3.2 mm (1/8") substrate. Engrave using outline font. Peel excess profile material off substrate.

The dimensions indicated represent our minimal commitment.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS
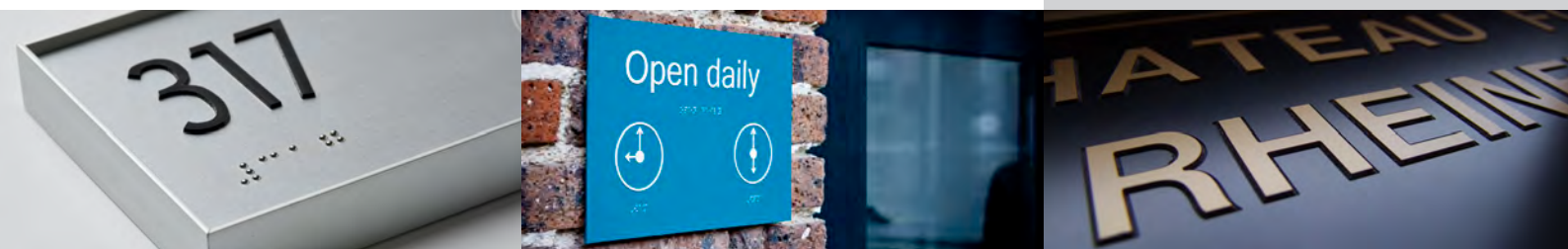
BENEFITS

- Laser engraving and cutting
- Very thin and flexible
- Excellent for labels
- Fine engraving, neat cutting
- Delivered with adhesive backing

| CO₂ | Rotary | UV Print | Indoor | Surface |

APPLICATIONS

Identification labels, trophy plates, labels for curved surface

SPECIFICATIONS

Finish	Matt, Brushed, Glossy
Composition	Acrylic
Engraving depth	0.1 mm (.004")
Full sheet	610 mm x 305 mm (24" x 12")
Half sheet	-
Quarter sheet	-
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	-
Silk screen	-
Hot stamp	-
Heat bending	-
Scratch resistant	-
Flexible	■
Break resistant	-
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

A high resolution material, flexible and laserable.

Metallic colours for your trophy plates.

Delivered with adhesive backing.

For custom colours, see Custom materials on demand p.10.
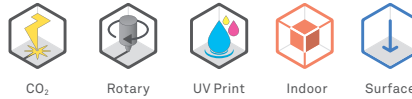
surface / core colour	2-ply 0.25 mm (.01")	
white / black		66984
yellow / black		66985
orange / black		66986
red / white		66997
purple / white		67002
apple green / white		67001
pine green / white		71673
sky blue / white		67000
blue / white		71670
air force blue / white		71671
brown / white		67004
brushed aluminium / black		66991
glossy silver / black		66990
matt aluminium / black		67558
european gold / black		66989

surface / core colour	2-ply 0.25 mm (.01")	
glossy gold / black		66988
grey / white		67003
black / white		66995

GRAVOGRAPH

Emily Flowers

1st Prize

CO₂   UV Print   Indoor   Surface

2-ply

0.09 mm (.004")

surface /
core colour

| silver / black | | 19872 |
| black / white | | 19871 |

BENEFITS

• Laser engraving and cutting
• Available in black/white or silver/black
• 10 meter (32') roll
• Very thin
• Delivered with adhesive backing
• Design special shapes with your CO_2 laser

APPLICATIONS

Labels, barcodes, trophy plates

SPECIFICATIONS

Finish	Matt
Composition	Acrylic
Engraving depth	0.025 mm (.001")
Full sheet	120 mm x 10m (4.75" x 32')
Half sheet	-
Quarter sheet	-
Other size	-

CAPABILITIES

Interior	▪
Exterior	-
Shear	▪
Saw	-
Silk screen	▪
Hot stamp	-
Heat bending	-
Scratch resistant	-
Flexible	▪
Break resistant	▪
UV resistant	-
Min. temp.	-60°C (-76°F)
Max. temp.	200°C (392°F)

TECH TIPS

Delivered in roll, with adhesive backing.

Very good material for small labels on curved surface.

240159201352635

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS

BENEFITS

- Phenolic material
- Glossy finish
- Resistant to chemicals and solvents
- Non-flammable
- Conforms to military specifications ASTM D 709 ES-1, ES-2, ES-3
- Electrically non-conductive

APPLICATIONS

Industrial identification

SPECIFICATIONS

Finish	Glossy
Composition	Rigid thermoset material
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 600 mm (48" x 24")
Half sheet	605 mm x 600 mm (24" x 24")
Quarter sheet	600 mm x 300 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	-
Saw	■
Silk screen	■
Hot stamp	-
Heat bending	-
Scratch resistant	■
Flexible	-
Break resistant	-
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	180°C (356°F)

TECH TIPS

Thanks to its specific characteristics, this material is the ideal choice for all your industrial identification needs.

Gravostrat™ can be laser engraved but not laser cut.

CO₂* | Rotary | UV Print | Indoor | Surface
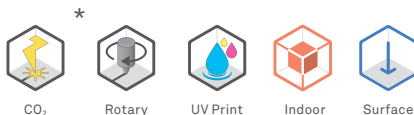
Double-sided

surface / core colour	1.0 mm (.040")	1.4 mm (.055")	2.5 mm (.087")
white / red		22045	
white / blue			18516
white / black	30385	22042	22049
yellow / black		22044	22051
red / white		22043	22050
green / white		22046	22053
blue / white		18489	18509
grey / black		22047	
black / white	30395	22041	22048

* Gravostrat™ can be laser engraved but not laser cut.
  Gravostrat™ may be subject to slight variations in thickness.

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS

CO₂ Indoor Surface

	2.2 mm (.087")
natural rubbalase	19897
odourless rubbalase	48542

BENEFITS

- Natural rubber sold in sheets, exclusively for lasering with CO_2 laser engraving machines to create inking stamps
- Grey in colour, 2.2 mm (.087") in thickness

APPLICATIONS

Rubber stamps

SPECIFICATIONS

Finish	Grey
Composition	Rubber
Engraving depth	-
Full sheet	297 x 210 mm (A4) (11.7" x 8.3")
Half sheet	-
Quarter sheet	-
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	-
Saw	-
Silk screen	-
Hot stamp	-
Heat bending	-
Scratch resistant	-
Flexible	■
Break resistant	■
UV resistant	-
Min. temp.	-40°C (40°F)
Max. temp.	80°C (176°F)

TECH TIPS

The hardness of elastomers is measured on the scale "Shore A"; Rubbalase™ is measured at 60 "Shore A".

GRAVOGRAPH

GRAVOPLY™ 1

PREMIUM ENGRAVING MATERIALS

BENEFITS

- Satin finish (except Matt Decor)
- 2-ply or double-sided
- Many colours and thicknesses
- Scratch resistant

Rotary | UV Print | Indoor | Surface

APPLICATIONS

Interior signage, identification plates, key tags

SPECIFICATIONS

Finish	Satin
Composition	XT/ABS
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	■
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

The acrylic surface of this product and its smooth satin finish makes this very popular product scratch resistant.

For custom colours, see Custom materials on demand p.10.

Double-sided

surface / core colour	2-ply 0.8 mm (1/32")	1.6 mm (1/16")	2.4 mm (3/32")	1.6 mm (1/16")	3.2 mm (1/8")
white / red	17385	17484			29699
white / green		17313			
white / pine green		29561			
white / blue	17284	17396	17489		
white / black	17263	17331	22030	29578	29700
ivory / chocolate brown		17310			
almond / silver grey		17425			
almond / black		32293			
yellow / blue		17373			
yellow / black	17273	17366	17478	29579	17525
yellow / white		29564			
yellow / magenta		29565			
orange / white		17407			
orange / black		17404			
burnt orange / black	29560	29566			

surface / core colour	2-ply 0.8 mm (1/32")	1.6 mm (1/16")	2.4 mm (3/32")	1.6 mm (1/16")	3.2 mm (1/8")
red / white	17267	17506	17472	29580	29702
red / black		17454			
red / yellow		17445			
burgundy / white		17463			
burgundy / silver grey		17431			
purple / white		17436			
teal / white		29569			
apple green / white	17292	17442	17503		29602
green / white		17393			
pine green / white		17410	17495		
metallic blue / white		17363			
azure blue / yellow		17439			
azure blue / white	17270	17353	17475	29603	29705
air force blue / white		17428	17500		
navy blue / silver grey		29582			

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS

Rotary · UV Print · Indoor · Surface

BENEFITS

- Satin finish (except Matt Decor)
- 2-ply or double-sided
- Many colours and thicknesses
- Scratch resistant

APPLICATIONS

Interior signage, identification plates, key tags

SPECIFICATIONS

Finish	Matt, Satin
Composition	XT/ABS
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	■
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

Double-sided

surface / core colour	2-ply 0.8 mm (1/32")	1.6 mm (1/16")	2.4 mm (3/32")	1.6 mm (1/16")	3.2 mm (1/8")
navy blue / white		29581			29706
rust / white		17448			
cocoa / white		17419			
cocoa / chocolate brown		17413			
brown / white		17388			
chocolate brown / white		31641			29704
light grey / black		29583			
silver grey / white		29584			
silver grey / black	17276	17379	17481		
metallic grey / white		17376			
black / white	17250	17319	17467	29604	17521
black / red		29601			
black / yellow		17399			
black / silver grey		29572			

Design Matt decor

surface / core colour	2-ply 1.6 mm (1/16")
new york white / slate	29614
candlewick / slate	29616
candlewick / green	32743
slate / new york white	29617

Design Translucent

surface / core colour	2-ply 1.6 mm (1/16")
red / translucent white	17301
black / translucent white	17295

TECH TIPS

The acrylic surface of this product and its smooth satin finish makes this very popular product scratch resistant.

For custom colours, see Custom materials on demand p.10.

The dimensions indicated represent our minimal commitment.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

GRAVOGRAPH

PREMIUM
ENGRAVING
MATERIALS

BENEFITS

- This unique material offers 3 layers of colour for surface engraving
- The colour revealed varies according to the depth of engraving
- Only one tool required to achieve two different colours
- Ideal for safety signs

Rotary   UV Print   Indoor   Surface

APPLICATIONS

Signage, plates with logos, badges

SPECIFICATIONS

Finish	Matt
Composition	ABS
Engraving depth	0.1 mm(.004") - 0.3 mm (.012")
Full sheet	1 220 mm x 600 mm (48" x 24")
Half sheet	610 mm x 600 mm (24" x 24")
Quarter sheet	600 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	■
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Unique on the engraving market, it is the only 3-colour material that does not require colouring.

Other colour combinations available on demand. Contact us for more information.

For custom colours, see Custom materials on demand p.10.

	3-ply
surface / core colour / core colour	1.6 mm (1/16")
white / red / black	23957
yellow / white / black	23949
yellow / red / black	23954
red / white / black	23955
apple green / white / black	23953
blue / white / black	23956
blue / red / white	23952
brushed aluminium / black / white	23951
radiant gold / black / white	23950
black / red / white	23948

GRAVOGRAPH

Ascenseur

PREMIUM
ENGRAVING
MATERIALS

Rotary | UV Print | Indoor | Outdoor | Surface

BENEFITS

- Very flexible
- Interior and exterior
- Excellent resistance to acids and solvents
- Comes with adhesive backing
- Colours for the identification of pipes in the industrial sector

APPLICATIONS

Industrial signage, permanent labels

SPECIFICATIONS

Finish	Matt
Composition	PVC
Engraving depth	0.02 mm (.001")
Full sheet	660 mm x 480 mm (25" x 18")
Half sheet	480 mm x 330 mm (18" x 12,5")
Quarter sheet	-
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	■
Saw	-
Silk screen	■
Hot stamp	■
Heat bending	-
Scratch resistant	-
Flexible	■
Break resistant	■
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

2-ply

0.2 mm (.008")

surface / core colour

surface / core colour	0.2 mm (.008")
white / black	18448
yellow / black	18456
orange / black	18462
red / white	18450
purple / white	18469
green / white	18460
blue / white	18452
brown / white	18458
silver / black	21811
gold / black	18464
copper / black	18467
grey / white	18454
black / white	18446

TECH TIPS

Unique on the market, colours for identification of pipes in the industrial sector.

For CO_2 laser engraving, we suggest the use of Flexilase™ p.24.

GRAVOGRAPH

GRAVOGLAS™ 2-PLEX™

PREMIUM ENGRAVING MATERIALS

Rotary · UV Print · Indoor · Outdoor · Surface

BENEFITS

- 3 choices of surface: matt, glossy or textured
- For indoor and outdoor use
- UV stable

APPLICATIONS

Indoor and outdoor signage, professional plates, directories

SPECIFICATIONS

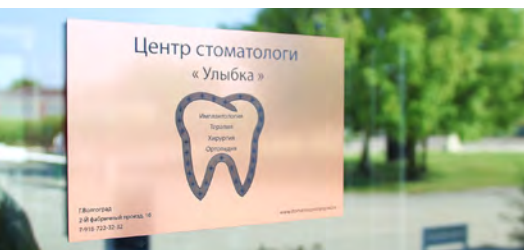|	
Finish	Matt
Composition	DR Acrylic
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	-
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	-
Break resistant	-
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Large choice of colours and finishes, plus many other combinations available on request.

The textured finish makes the product surface stronger and scratch resistant. Ideal for industrial applications.

For custom colours, see Custom materials on demand p.10.

Surface engraving
Matt

Double-sided

surface / core colour		2-ply 1.6 mm (1/16")	3.2 mm (1/8")	3.2 mm (1/8")
white / red		29627		
white / blue		29628		
white / black		17875	29904	29912
yellow / black		17881		
orange / black		29633		
orange / white		47230		
red / white		17877	29905	
burgundy / white		17883		
teal / white		29637		
apple green / white		17885	29906	
green / eggshell		29639		
metallic blue / white		29641		
azure blue / white		17879	29907	
chocolate brown / white		29636		
silver grey / black		17887	29908	

surface / core colour		2-ply 1.6 mm (1/16")	3.2 mm (1/8")	3.2 mm (1/8")
gold / black		29642	29910	
black / white		17873	29911	29913
black / gold		29643		

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS

Rotary | UV Print | Indoor | Outdoor | Surface

BENEFITS

- Surface engraving
- 3 choices of surface: matt, glossy or textured
- For indoor and outdoor use
- UV stable

Surface engraving
Glossy

surface / core colour	2-ply	
	1.6 mm (1/16")	3.2 mm (1/8")
white / red	17907	18063
white / blue	17904	
white / black	17892	18051
yellow / black	17901	18060
red / white	17895	18054
burgundy / white	17913	18069
apple green / white	17910	18066
pine green / white	17918	18072
azure blue / white	17898	18057
royal blue / white	29647	
brown / white	29644	
chocolate brown / white	29645	29650
silver grey / black	17930	18078
gold / black	17927	18075
copper / black	17924	
black / white	17889	18048
black / gold	17933	18080

Textured

surface / core colour	2-ply	
	1.6 mm (1/16")	3.2 mm (1/8")
white / black		18304
white / red		18325
white / pine green		18337
almond / black		34404
yellow / black		18334
red / white		18307
apple green / white		29654
pine green / white		18343
azure blue / white		18310
american blue / white		18313
brown / white		18328
silver grey / black		18322
black / white	18301	29917

The dimensions indicated represent our minimal commitment.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

GRAVOGRAPH

APPLICATIONS

Indoor and outdoor signage, professional plates, directories

SPECIFICATIONS

Finish	Glossy, Textured
Composition	DR Acrylic
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	▪
Exterior	▪
Shear	-
Saw	▪
Silk screen	▪
Hot stamp	▪
Heat bending	▪
Scratch resistant	▪
Flexible	-
Break resistant	-
UV resistant	▪
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Large choice of colours and finishes, plus many other combinations available on request.

The textured finish makes the product surface stronger and scratch resistant. Ideal for industrial applications.

For custom colours, see Custom materials on demand p.10.

PREMIUM ENGRAVING MATERIALS

Rotary | UV Print | Indoor | Outdoor | Subsurface

BENEFITS

• For indoor and outdoor use
• UV stable
• Subsurface engraving

APPLICATIONS

Indoor and outdoor signage, professional plates, directories

SPECIFICATIONS

Finish	Matt
Composition	DR Acrylic
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	-
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	-
Break resistant	-
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

UV stability for outdoor signage.

You can use Gravograph recommended paint to colour any Gravoglas™ 2-Plex™ subsurface engraving. See p.55.

For custom colours, see Custom materials on demand p.10.

Subsurface engraving
Matt

surface / backing colour	2-ply 1.6 mm (1/16")	3.2 mm (1/8")
clear / clear	17941	18082
clear / white	17947	18086
clear / eggshell		33982
clear / almond	17958	33977
clear / cream	29658	
clear / yellow	17956	
clear / red	17950	18088
clear / bordeaux	29659	
clear / burgundy	17976	
clear / apple green	17973	
clear / green	29662	34381
clear / azure blue	17953	33962
clear / american blue	29663	
clear / royal blue	29665	
clear / metallic blue	29666	

surface / backing colour	2-ply 1.6 mm (1/16")	3.2 mm (1/8")
clear / cocoa		29660
clear / taupe		29661
clear / chocolate brown	17970	34363
clear / silver grey	17961	34406
clear / slate		29667
clear / silver		29669
clear / gold		29670
clear / black	17944	18084

Gravograph

GOLF

Département Signalétique Braille

PREMIUM ENGRAVING MATERIALS

Rotary | UV Print | Indoor | Outdoor | Subsurface

Subsurface engraving
Glossy

surface / backing colour	2-ply		
	1.6 mm (1/16")	3.2 mm (1/8")	4.8 mm (.20")
clear / clear	29655	29657	
clear / white	17988	18021	18101
clear / almond		18015	
clear / yellow	18003	18036	
clear / red	17997	18030	
clear / air force blue	17938	18018	
clear / azure blue	18000	18033	
clear / silver grey	29656		
clear / silver	17985	18093	
clear / gold	17982	18091	
clear / black	17991	18024	18104

BENEFITS

- For indoor and outdoor use
- UV stable
- Subsurface engraving

APPLICATIONS

Indoor and outdoor signage, professional plates, directories

SPECIFICATIONS

Finish	Glossy
Composition	DR Acrylic
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	-
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	-
Break resistant	-
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

UV stability for outdoor signage.

You can use Gravograph recommended paint to colour any Gravoglas™ 2-Plex™ subsurface engraving. See p.55.

For custom colours, see Custom materials on demand p.10.

The dimensions indicated represent our minimal commitment.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

GRAVOGRAPH

PREMIUM
ENGRAVING
MATERIALS

BENEFITS

- Interior use
- Profile available with or without adhesive backing

Rotary   UV Print   Indoor

APPLICATIONS

DDA & ADA compliant, tactile signage

SPECIFICATIONS

Finish	Matt
Composition	ABS
Engraving depth	-
Full sheet	1220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	■
Flexible	■
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Matt finish and wide range of colours ideal for your Braille and tactile signs and pictograms. Americans with Disabilities Act (ADA) compliant. For better visibility, choose contrasted colours.

	1-ply		
	0.8 mm (1/32")	1.6 mm (1/16")	3.2 mm (1/8")
clear	32729		
bright white	37042	29879	31260
white	37033	29880	31236
almond	37070	29882	32294
yellow	24998	29883	
rust	32291	29884	32292
red	25001	29885	31699
burgundy	69711	29888	31728
tan	32726	29889	32727
taupe	37047	29890	31261
brown	31631	29891	
chocolate brown	37058	29892	31646
pine green	37060	29895	31836
metallic blue	37032	29896	31392
azure blue	37048	29897	31404

	1-ply		
	0.8 mm (1/32")	1.6 mm (1/16")	3.2 mm (1/8")
navy blue	69712	29898	31360
candlewick	37050	29899	31410
silver grey	69713	29900	32185
slate	37065	29901	32276
black	37037	29902	31256

The Gravotac™ process :

Adhere 0.8 mm (1/32") profile material to 1.6 mm (1/16") or 3.2 mm (1/8") substrate. Engrave using outline font. Peel excess profile material off substrate.

GRAVOGRAPH

GRAVOLASE™ METALLICS

CO₂ · Rotary · UV Print · Indoor · Outdoor · Surface

Indoor

surface / core colour	0.5 mm (.020")	0.8 mm (.030")	1.3 mm (.050")	1.6 mm (1/16")
			2-ply	
radiant silver / black		51026	49986	
radiant silver / blue		51059	51013	
glossy silver / black	29548	51027	49980	29558
brushed silver / black	18961			19003
brushed silver / blue	18968			
brushed aluminium / black		51025	49981	77657
matt aluminium / black		51024	51002	
brushed bronze / white	29545			29555
brushed bronze / black	29544	51032	51004	29554
copper / black	29546			29556
radiant gold / black		51028	49983	80840
brushed gold / black	18960	51031	49985	19002
european gold / black	29542	51030	49982	29552
glossy gold / black	29543	51029	49984	29553

Outdoor

surface / core colour	1.6 mm (1/16") *
	2-ply
glossy aluminium / black	81694
matt aluminium / black	78538
brushed silver / black	78539
brushed copper / black	78541
brushed gold / black	78540

* Other thickness available on demand

BENEFITS

- Laser engraving and cutting
- 0.025 mm (.001") cap layer for detailed engraving
- 0.5 mm (.020") thickness suitable for bevelling
- UV resistant
- Metallic, glossy, brushed, matt finish
- Excellent for interior and exterior signage

APPLICATIONS

Badges, trophy plates, award plates, identification plates, interior and exterior signage

SPECIFICATIONS

Finish	Metallic, Glossy, Brushed, Matt
Composition	DR Acrylic
Engraving depth	0.1 mm (.004")
Full sheet	1 220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	▪
Exterior	▪
Shear	▪
Saw	-
Silk screen	▪
Hot stamp	▪
Heat bending	▪
Scratch resistant	-
Flexible	▪
Break resistant	-
UV resistant	▪
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

We offer fabrication services to prepare your badges, labels, plates, etc. All you have to do is engrave them. Contact us for more information.

For custom colours, see Custom materials on demand p.10.

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS

BENEFITS

- 2-ply silver, gold, aluminium, bronze
- Microthin surface layer
- Metallex™ is excellent for indoor applications
- Metallex™ Gloss has an extra durable, scratch resistant, glossy cap
- Metallex™ Hard Coat for a smooth, supergloss finish

CO₂ | Rotary | UV Print | Indoor | Surface

APPLICATIONS

Badges, identification plates, plates

SPECIFICATIONS

Finish	Glossy, Matt, Brushed
Composition	ABS
Engraving depth	0.1 mm (.004")
Full sheet	1220 mm x 610 mm (48" x 24")
Half sheet	610 mm x 610 mm (24" x 24")
Quarter sheet	610 mm x 305 mm (24" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	■
Silk screen	■
Hot stamp	■
Heat bending	■
Scratch resistant	-
Flexible	■
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	80°C (176°F)

TECH TIPS

Metallex™ Gloss: a glossy cap is applied, giving a slightly grainy surface for less fingermarks and higher scratch resistance.

Metallex™ Hard Coat: topcoat processing giving a smooth, super gloss finish.

For custom colours, see Custom materials on demand p.10.
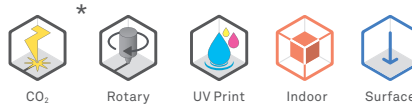
Metallex™

surface / core colour	2-ply			
	0.5 mm (.020")	0.8 mm (1/32")	1.5 mm (1/16")	2.4 mm (3/32")
brushed silver / black		21825	21889	21957
matt aluminium / black	53224	21867	21941	21999
brushed aluminium / black	53221	21830	21898	21965
glossy silver / red			21902	
glossy silver / blue			21900	
glossy silver / black	71616	21823	21887	21955
new gold / black	53222	21846	21914	21978
radiant gold / black		21824	21888	21956
european gold / black		21836	21903	21969
glossy gold / black	53223	21822	21886	21954
brushed bronze / white		21826	21890	
brushed bronze / black			21904	

Metallex™ Gloss

surface / core colour	2-ply
	1.5 mm (1/16")
brushed aluminium / black	23974
glossy silver / black	23972
radiant gold / black	23973
european gold / black	23975
glossy gold / black	23971

Metallex™ Hard Coat

surface / core colour	2-ply
	1.5 mm (1/16")
radiant silver / black	21892
brushed aluminium / black	21883
glossy silver / black	21882
radiant gold / black	21891
european gold / black	21884
glossy gold / black	21881

* Metallex™ products have a laserable foil cap but engraving color results can vary according to the reference. Vector cutting is not recommended.

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS

Rotary   UV Print   Indoor   Surface

Double-sided

surface / core colour			1.5 mm (1/16")	3.0 mm (1/8")
gold / black / silver			18472*	18482*
silver / black / silver			18471**	

* One side brushed gold, other side matt silver
** Both sides matt silver

BENEFITS

• One product with two finishes
• Aluminium caps with a black phenolic core
• No paint filling required

APPLICATIONS

Professional interior signage, award plates, identification plates, signage

SPECIFICATIONS

Finish	Brushed, Matt
Composition	Aluminium / Phenolic
Engraving depth	0.3 mm (.012")
Full sheet	1 220 mm x 605 mm (48" x 23")
Half sheet	610 mm x 605 mm (24" x 23")
Quarter sheet	605 mm x 305 mm (23" x 12")
Other size	-

CAPABILITIES

Interior	▪
Exterior	-
Shear	-
Saw	▪
Silk screen	▪
Hot stamp	-
Heat bending	-
Scratch resistant	▪
Flexible	-
Break resistant	▪
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	180°C (356°F)

TECH TIPS

This material offers the advantages of aluminium without the inconvenients. Its aluminium surface on both sides and phenolic core save time and money by avoiding paint filling.

GRAVOGRAPH

PREMIUM ENGRAVING MATERIALS

BENEFITS

• For rotary and laser engraving
• High detail laser engraving

| CO₂ | Rotary | UV Print | Indoor | Outdoor | Surface |

APPLICATIONS

Control panels, legend plates, award plates, interior and exterior signage

SPECIFICATIONS

Finish	Matt or Glossy
Composition	Aluminium
Engraving depth	0.1 mm (.004")
Full sheet	1000 mm x 500 mm (39" x 19")
Half sheet	-
Quarter sheet	-
Other size	2 000 mm x 1 000 mm (78" x 39")

CAPABILITIES

Interior	■
Exterior	■
Shear	■
Saw	■
Silk screen	■
Hot stamp	-
Heat bending	-
Scratch resistant	■
Flexible	-
Break resistant	■
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	200°C (392°F)

TECH TIPS

Strong anodisation for a durable protection of the material.

Available sizes are 1000 mm x 500 mm (39" x 19") or 2000 mm x 1000 mm (78" x 39") on request. You can use Gravograph recommended paint to colour any Gravoxal™ engraving. See p.55.

Aloxide may be used to colour glossy plates (small characters) after rotary engraving.

Matt

	0.5 mm (.02")	1.0 mm (.04")	1.5 mm (1/16")	2.0 mm (1/12")	2.5 mm (3/32")	3.0 mm (1/8")	4.0 mm (1/6")
champagne		18581	18595	18608			
red		18577	18591	18605			
green		18583	18597	18610			
blue		18579	18593	22058			
silver	18385	22055	18386	22057	18387	22059	18388
gold		18571	18575	18589	18603	18616	
bronze		18585	18599	18612			
black	18569	18573	18587	18601		18614	

Glossy

	1.0 mm (.40")	1.5 mm (1/16")	2.0 mm (1/12")
champagne	18640	18662	18681
red	18636	18658	18677
green	18642	18664	18683
blue	18638	18660	18679
silver	18618	18646	18668
steel look	30381	30382	30383
gold	18630	18654	18674
bronze	18644	18666	18685
black	18624	18650	18671

Silver colours are anodised on both sides during the continuous anodisation process.
Protective film on one side.
Due to the process, there can be stains in the corners of aluminium sheets.
* Laser engraving on coloured materials. The engraving contrast may vary according to the colour.

Gravograph

Anodising process may produce slightly different colours from one batch to another.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

CO₂ · Rotary · UV Print · Indoor · Outdoor · Surface

BENEFITS

- Double-sided anodised aluminium
- For rotary and laser engraving
- High detail laser engraving

APPLICATIONS

Control panels, legend plates, award plates, interior and exterior signage

SPECIFICATIONS

Finish	Matt or Glossy
Composition	Aluminium
Engraving depth	0.1 mm (.004")
Full sheet	1 000 mm x 500 mm (39" x 19")
Half sheet	-
Quarter sheet	-
Other size	2 000 mm x 1 000 mm (78" x 39")

CAPABILITIES

Interior	∎
Exterior	∎
Shear	∎
Saw	∎
Silk screen	-
Hot stamp	-
Heat bending	-
Scratch resistant	∎
Flexible	-
Break resistant	∎
UV resistant	∎
Min. temp.	-40°C (-40°F)
Max. temp.	200°C (392°F)

Matt

Double-sided

	1.0 mm (.04")	1.5 mm (1/16")	2.0 mm (1/12")
champagne	18360	18372	18383
red	18354	18366	18377
green	30538	30540	30542
blue	18356	18368	18379
silver	18350	18362	18374
gold	18358	18370	18381
bronze	30532	30534	30536
dark bronze	64567	64569	64571
black	18352	18364	22056

Glossy

Double-sided

	1.0 mm (.04")	1.5 mm (1/16")	2.0 mm (1/12")
champagne	18555	18561	18567
red	18552	18558	18564
green	30521	30522	30523
blue	18553	18559	18565
silver	18550	18556	18562
gold	18554	18560	18566
bronze	30524	30526	30530
black	18551	18557	18563

All colours are anodised on both sides during the continuous anodisation process.
Protective film on both sides.
Due to the process, there can be stains in the corners of aluminium sheets.
* Laser engraving on coloured materials. The engraving contrast may vary according to the colour.

TECH TIPS

Perfectly anodised and protected on both sides, Gravoxal™ Double-sided can be used for flag signage.

Aloxide may be used to colour glossy plates (small characters) after rotary engraving.

PREMIUM ENGRAVING MATERIALS

Anodising process may produce slightly different colours from one batch to another.
Printed colours for indication only. Cannot serve as a substitute for real material sample.

GRAVOGRAPH

PREMIUM
ENGRAVING
MATERIALS
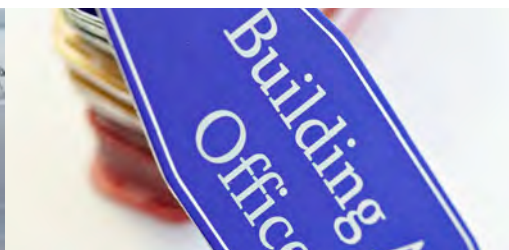
BENEFITS

- High quality engraver's brass
- Paint fill with Gravograph recommended paint

Rotary | UV Print | Indoor | Outdoor | Surface

APPLICATIONS

High quality signage, company name plates

SPECIFICATIONS

Finish	Solid or shiny polished
Composition	Brass
Engraving depth	0.3 mm (.012")
Full sheet	1340 mm x 670 mm (52" x 26")
Half sheet	670 mm x 670 mm (26" x 26")
Quarter sheet	670 mm x 335 mm (26" x 13")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	■
Saw	■
Silk screen	■
Hot stamp	-
Heat bending	-
Scratch resistant	-
Flexible	-
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	370°C (700°F)

TECH TIPS

Brass oxidation is a natural phenomenon. Clean your Gravobrass™ Exterior regularly to preserve its brightness or add a potective varnish after engraving. Solid brass is unpolished and may feature surface defects.

You can use Gravograph recommended paint to colour any Gravobrass™ Exterior engraving. See p.63. Use of chemicals on this material is not recommended.

Shiny polished

	1.0 mm (.04")	1.5 mm (1/16")	2.0 mm (1/12")	3.0 mm (1/8")
shiny polished brass	22032	22034	22036	22038

Solid

	1.0 mm (.04")	1.5 mm (1/16")	2.0 mm (1/12")	3.0 mm (1/8")
solid brass	22031	22033	22035	22037

Solid brass is unpolished and may feature surface defects.

Gravograph

Printed colours for indication only. Cannot serve as a substitute for real material sample.

PREMIUM ENGRAVING MATERIALS

Rotary   UV Print   Indoor   Surface

BENEFITS

• Diamond, rotary and burnish engraving
• Pre-polished and lacquered
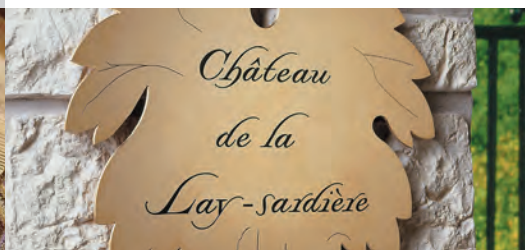
Glossy

surface / core colour			0.5 mm (.020")	1.2 mm (.050")
gold / gold			18407	18435

APPLICATIONS

Interior signage, award plates, ornamental plates

SPECIFICATIONS

Finish	Glossy or Satin
Composition	Brass
Engraving depth	0.1 mm (.004") / 0.3 mm (.012")
Full sheet	1220 mm x 305 mm (48" x 12")
Half sheet	610 mm x 305 mm (24" x 12")
Quarter sheet	305 mm x 305 mm (12" x 12")
Other size	-

Satin

		0.6 mm (.025")	1.2 mm (.050")	1.6 mm (1/16")
gold / gold		18423	18438	18441
silver / gold		18429		

CAPABILITIES

Interior	▪
Exterior	-
Shear	▪
Saw	▪
Silk screen	▪
Hot stamp	-
Heat bending	-
Scratch resistant	-
Flexible	-
Break resistant	▪
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	200°C (392°F)

TECH TIPS

High quality brass varnish finish, ideal for indoor plates. You can also add a potective varnish after engraving for outdoor use.

Apply clear lacquer after engraving to avoid tarnishing.

Use Gravoxide or paint fill for contrasting letter colour.

GRAVOGRAPH

44

Metallic material
Laser / Rotary

COLORED ALUMINUM

PREMIUM
ENGRAVING
MATERIALS
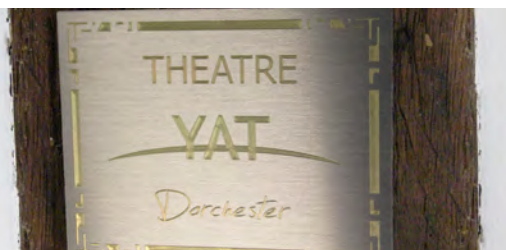
BENEFITS

• Lightweight
• Easy to shear
• Sublimatable

APPLICATIONS

Trophies, award plates, name plates, signage

SPECIFICATIONS

Finish	Satin or glossy
Composition	Aluminium
Engraving depth	0.2 mm (.008")
Full sheet	1220 mm x 305 mm (48" x 12")
Half sheet	610 mm x 305 mm (24" x 12")
Quarter sheet	305 mm x 305 mm (12" x 12")
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	■
Silk screen	■
Hot stamp	-
Heat bending	-
Scratch resistant	■
Flexible	-
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	100°C (212°F)

TECH TIPS

Thin aluminium for small plates and labels, to be engraved with your laser machine.

Good contrast result after engraving.

Fibre   Rotary   Indoor   Surface

surface / core colour	2-ply 34426* 0.6 mm (.025")
glossy white / silver	34426*
glossy red / silver	34528
glossy blue / silver	34497
satin gold / silver	34595
glossy gold / silver	34596
satin silver / silver	34625
glossy silver / silver	34626
glossy black / silver	34455

* Glossy white full sheet 610 mm x 305 mm (24"x 12").

Gravograph

PREMIUM
ENGRAVING
MATERIALS

Fibre   Rotary   Indoor   Surface

BENEFITS

• Lightweight
• Easy to shear

APPLICATIONS

Trophies, award plates, name plates

SPECIFICATIONS

Finish	Satin, glossy or matt
Composition	Brass
Engraving depth	0.2 mm (.008")
Full sheet	610 mm x 305 mm (24" x 12")
Half sheet	305 mm x 305 mm (12" x 12")
Quarter sheet	-
Other size	-

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	■
Silk screen	■
Hot stamp	-
Heat bending	-
Scratch resistant	■
Flexible	-
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	370°C (700°F)
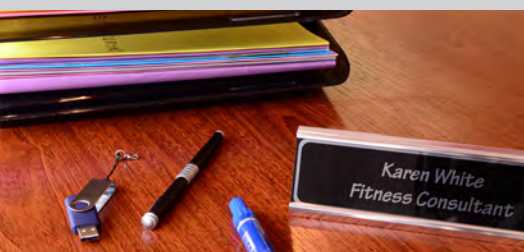
2-ply

surface /
core colour

0.5 mm (.020")

surface / core colour		2-ply
glossy white / gold		34645
glossy red / gold		34692
glossy burgundy / gold		34685
glossy green / gold		34710
glossy blue / gold		34679
glossy royal blue / gold		34694
satin gold / gold		34714
glossy gold / gold		34715
glossy black / gold		34677
matt black / gold		61083

TECH TIPS

The ideal brass material for all your trophy and award plates. Large choice of colours and great contrast results after engraving process.

We recommend engraving with a diamond or lasering.

GRAVOGRAPH

Notice
Responsibility cannot
be accepted for any
articles left in this
cloakroom

Winner 2012
Juniors Soccer Tournament

Vehicles & contents
are left
at owner's risk

BENEFITS

• This special line of gold and silver anodised aluminium returns black characters when lasered with any standard CO_2 laser engraver.
• No oxidation or paint fill needed.
• Only 6-10 watts of power required.
• Satin finish

CO₂ **UV Print** **Indoor** **Surface**

APPLICATIONS

ID plates, bar codes, labels, control panels

SPECIFICATIONS

Finish	Satin
Composition	Aluminium
Engraving depth	0.025 mm (.001")
Full sheet	610 x 508 mm (24" x 20")
Half sheet	-
Quarter sheet	-
Other size	305 x 254 mm (12" x 10") for 27414
	508 x 305 mm (20" x 12") for 45878
	610 x 305 mm (24" x 12") for 45879 & 45878

CAPABILITIES

Interior	■
Exterior	-
Shear	■
Saw	-
Silk screen	■
Hot stamp	-
Heat bending	-
Scratch resistant	-
Flexible	■
Break resistant	■
UV resistant	-
Min. temp.	-40°C (-40°F)
Max. temp.	230°C (450°F)

TECH TIPS

Save time with this aluminium: no need to paint fill to get a black mark.

Power sensitive material. If image is grey, reduce power. If image is tan, increase power.

Engraving quality is improved using 50% speed.

Laser power: 6 - 10 watts

surface / core colour			0.127 mm (.005")*	0.5 mm (.020")	0.5 mm (.020") *
satin silver / black			27414	27417	27419
satin gold / black				27415	27416
satin brass / black			45879	45878	

* Delivered with adhesive backing.

Gravograph

Printed colours for indication only. Cannot serve as a substitute for real material sample.

PREMIUM ENGRAVING MATERIALS

CO₂ Indoor Outdoor Surface

surface / core colour

black / silver

71922   0.5 mm (.020") *
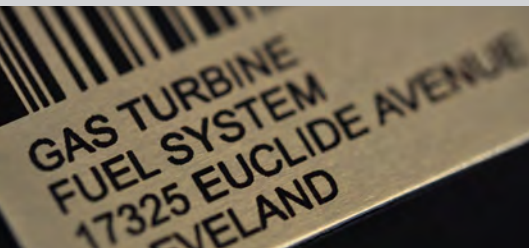
* Delivered with adhesive backing.
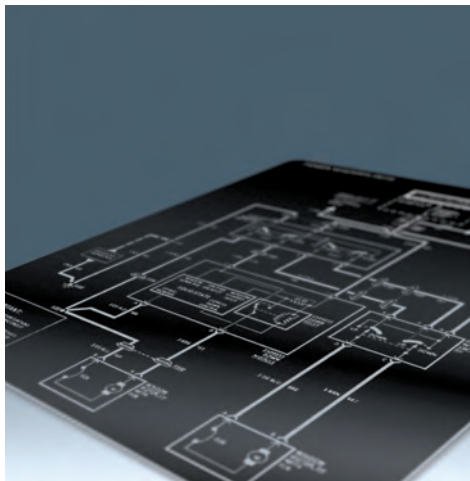
BENEFITS

- CO_2 laser markable aluminium for durable marking for harsh operating environments.
- Resistant to sunlight (UV-radiation), abrasion, high-temperatures, salt-spray and chemical exposure.
- Meets several government, industrial and military specifications

APPLICATIONS

Durable signage, placards, barcodes, asset tags

SPECIFICATIONS

Finish	Matt
Composition	Aluminium
Engraving depth	0.025 mm (.001")
Full sheet	610 mm x 508 mm (24" x 20")
Half sheet	508 mm x 305 mm (20" x 12")
Quarter sheet	305 mm x 254 mm (12" x 10")
Other size	-

CAPABILITIES

Interior	■
Exterior	■
Shear	■
Saw	■
Silk screen	-
Hot stamp	-
Heat bending	-
Scratch resistant	■
Flexible	-
Break resistant	-
UV resistant	■
Min. temp.	-40°C (-40°F)
Max. temp.	370°C (700°F)

TECH TIPS

Aluminium for CO_2 laser marking needs in high production environments.

Conforms to: MIL-STD 130N, A-A-50271, and MIL-STD-15024F, Type L, MIL-STD-810G for withstanding 96 hours of exposure to corosive chemicals. ASTM B117 30 days exposure to salt fog.

GRAVOGRAPH

Highly polished anodised aluminium in gold and silver

Counter and desk bases

Ideal for use in companies, retail shops and administrations for small size instruction signs intended to the public.

Description	Inserts	Insert length	Gold	Silver
Plate Stand	1.6 mm	200 mm	19474	19480
Plate Stand	1.6 mm	254 mm	34825	34880

Desk holders

To identify a person, function or department.

Description	Inserts	Insert size	Gold	Silver
Slimline Plate Holder	1.6 mm	178 x 25 mm	30073	30072
Standard Plate Holder	1.6 mm	203 x 51 mm	30077	30076
Standard Plate Holder	1.6 mm	254 x 51 mm	34820	19479

Double-sided holders

To identify a person, function or department on one side and brief instructions on the other.
Ideal for opening times or Open/Closed signs.
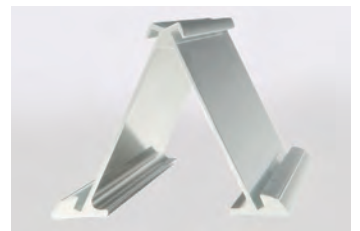
Description	Inserts	Insert size	Gold	Silver
Double-sided Plate Holder	1.6 mm	152 x 32 mm	30075	30074

Directories and sign holders

Ideal at the entrance of a department, stairwell or building level.
Use double-sided tape or drill holes to mount.

Description	Directory Size	Inserts	Header size	Insert size	Silver
Deluxe Directories, Header Plus Three Inserts	178 x 89 mm	1.6 mm	178 x 32 mm	178 x 19 mm	34911

Note: directory sizes are inside dimensions, delivered without header / inserts.
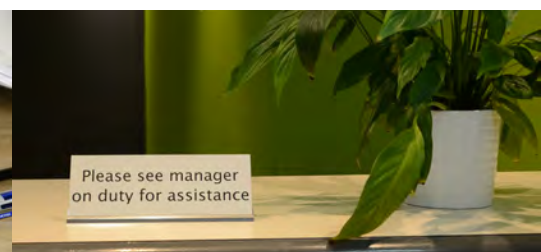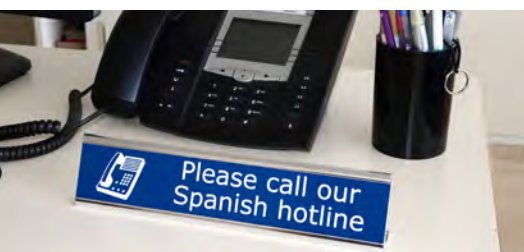
Wall and corridor brackets

Use double-sided tape or drill holes to mount.
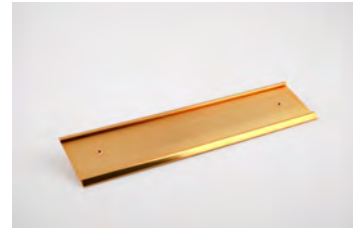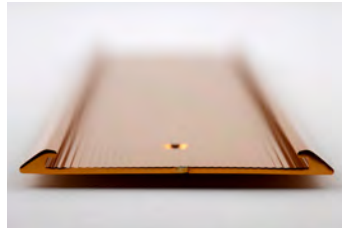
Description	Inserts	Insert size	Gold	Silver
Rib Back Plate Holder	1.6 mm	203 x 51 mm	19476	19485
Rib Back Plate Holder	1.6 mm	254 x 51 mm	30069	30068

To identify a department or an office with a name and function.

Description	Inserts	Insert size	Gold	Silver
Wall Plate Holder Plain back	3.2 mm	254 x 51 mm	34839	34893
Wall Plate Holder Plain back	1.6 mm	254 x 51 mm	65930	65929

Use different colour inserts to suit application and environment.
Make your choice from our Gravoply™ 1 or Gravoply™ 2 ranges.

Description	Inserts	Insert size	Gold	Silver
Utility Wall Plate Holder	1.6 mm	102 x 25 mm	19475	19482
Utility Wall Plate Holder	1.6 mm	152 x 25 mm	30067	30066
Utility Wall Plate Holder	1.6 mm	203 x 25 mm	34830	19483
Utility Wall Plate Holder	1.6 mm	203 x 38 mm	34833	34888
Utility Wall Plate Holder	1.6 mm	229 x 38 mm	34834	34889
Utility Wall Plate Holder	1.6 mm	660 x 38 mm	34836	34890

To mount signs perpendicular to the wall.

Description	Inserts	Insert height	Gold	Silver
Wall Bracket*	3.2 mm	51 mm min.	30070	19486
Wall Bracket*	3.2 mm	102 mm min.	30071	19487

*Cap nuts and screws included.

GRAVOGRAPH

The Braille Gravograph Total Solution

Materials

PREMIUM ENGRAVING MATERIALS

Software

Braille beads

Engraving machines

Training-support

Drilling tools

Bead dispenser
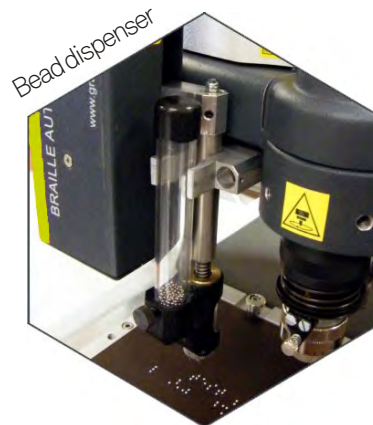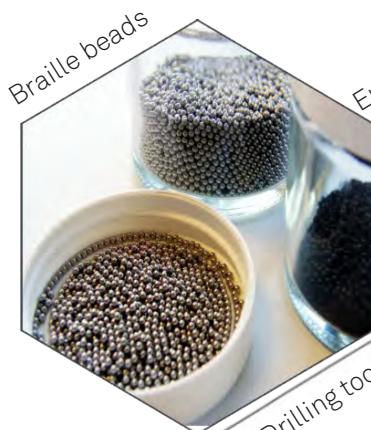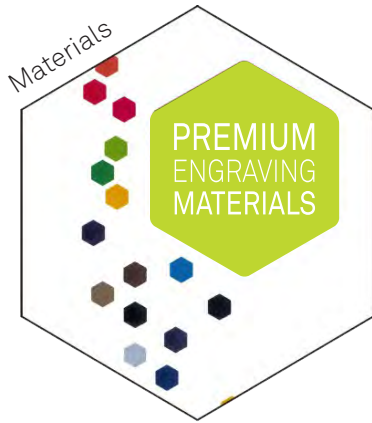
Braille is a system of tactile writing and reading for the use of blind and partially sighted people.

There is no SINGLE UNIVERSAL Braille system.
Different standards are used across the world, where sizes, character spacing and line spacing are specific to each individual language.

a b c d e f g h i j k l m n o p q r s t u v w x y z
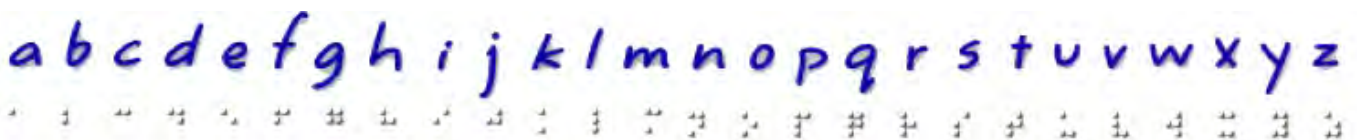
Software

The GravoStyle™ Braille option allows the transcription of text into Braille:

- 127 languages available from Discovery level upwards
- Totally automated procedure involving drilling followed by the insertion of beads (optional):
  - Customised cleaning and bead insertion speed
  - Specific parameters for plastics (ABS and acrylic), aluminium and brass, Gravotac™ and laminates

Machines

Compatible engraving machines:
- IS400, IS6000, IS7000 & IS8000
- Required accessory: shaving extractor

IS6000
Engraving zone
610 x 410 mm
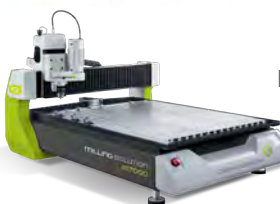
IS7000
Engraving zone
610 x 815 mm

IS400
Engraving zone
305 x 210 mm

IS8000
Engraving zone
610 x 1220 mm
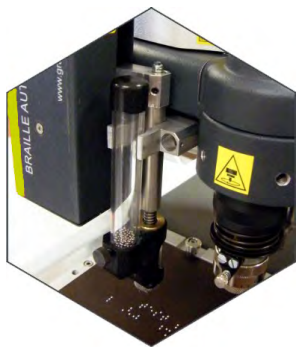
Bead dispenser

Automatic Braille kit
(drilling and bead insertion without manual intervention)

70711	Automatic Braille for IS400
70713	Automatic Braille for IS 6/7/8000 IQ+
70714	Automatic Braille for IS 6/7/8000 XP

Semi-automatic Braille kit

49959	Semi-automatic Braille kit
	for IS400 /IS6000-7000 -8000

- *IS400 / IS6000-7000-8000: adapter integrated into the semi-automatic Braille kit*

GRAVOGRAPH

Drilling tools

4 drilling tool references to choose from with the help of a tool selection assistance guide, according to the material and the beads used.

BRAILLE TOOL SELECTION GUIDE

ref: 48686 - Tool width 1.500 mm
ref: 48766 - Tool width 1.550 mm
ref: 48767 - Tool width 1.565 mm
ref: 48768 - Tool width 1.580 mm

	Adhesive-free materials			Materials with adhesive
	Steel beads	Brass beads	Acrylic beads	All beads
Metals	48767	48766	48767	48768
Acrylic	48767	48766	48767	48768
Gravotac™	48766	48766	48766	48768
Phénolic	48767	48766	48767	48768
ABS +2 Ply™	48686	48686	48686	48767

Braille beads

Reference	Description
49933	Stainless steel beads (x10000)*
49934	Brass beads (x10000)
49935	Clear acrylic beads (x10000)
49937	White acrylic beads (x10000)
49936	Black acrylic beads (x10000)

* Stainless steel beads recommended for semi-automatic and automatic Braille kits.

Micropel*

Reference	Description
76254	Antistatic solution for acrylic Braille beads

* Acrylic Braille beads only

www.gravograph.com
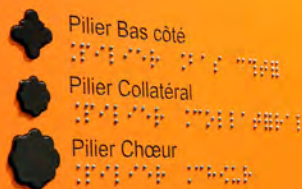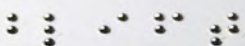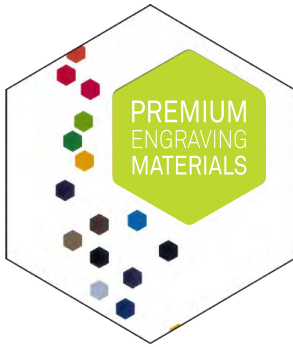
Materials to be engraved

Creativity and know-how, together with our extensive range of materials, colours, thicknesses and qualities, will allow you to meet the requirements of any type of specification.

The various thicknesses available in the range will guarantee your compliance with local and regional legislation.
The subtle use of the various materials will enable you to produce perfect:

- Lettering
- Icons and symbols
- Tactile drawings and reliefs as well as all other materials related to accessibility requirements

For the production of your items, we recommend:

- Gravotac™: a single layered material, available in 3 thicknesses and a variety of colours for interior or exterior use.
Gravotac™: over 90 references for all your Braille and tactile architectural signage programmes.

Icon construction procedure:

Phase 1: outlining   Phase 2: peeling away   Phase 3: result

Training and support

Gravotech after-sale service is on hand to reply to your technical questions on the use of our solutions.

On the basis of our experience and the requirements of your business we offer you a Special Braille Training Course delivered in some of our subsidiaries, where you will acquire all the knowledge essential to your signage specification, manufacture and installation needs.

GRAVOGRAPH

Laser metal marking

TherMark®

Water-based for fast clean up. A thin coat of material can be sprayed onto the metal, then left to dry for less than 2 minutes and engraved with your laser. The excess water-based material can be easily washed off to reveal the final **black mark**.

Designation	Capacity or size	Ref.
Thermark® LMM 14 Aerosol	170 g (6 oz)	67120 (*)
Thermark® LMM 14 Liquid ink	50 g (1.76 oz)	67119
Thermark® LMM 6018LF1 Tape	2.54 cm x 15 m (1" x 50')	71866
Thermark® LMM 6018LF2 Tape	5 cm x 15 m – (2" x 50')	67121

CerMark®

Solvent-based for easy handling before marking. This range contains a hardener that allows the products to be easily handled prior to marking with your laser (ideal for high production quota). The final result is the same permanent **black mark**.

Designation	Capacity or size	Ref.
Cermark® LMM 6000 Aerosol	340 g (12 oz)	68880 (*)
Cermark® LMM 6000 Paste	50 g (1.76 oz)	68878 (*)
	250 g (8.82 oz)	68879 (*)
	500 g (17.64 oz)	69974 (*)

Caution: these colouring products require special security measures. Use them in well ventilated rooms only and wear suitable protective clothing and gloves.

Safety kit

Containing protection glasses, 2 pairs of gloves (size 8 and size 9), 2 protection masks and a set of cleaning wipes.
Ref. 66599

* These items are shipped via ground transportation. For other means of transport, please consult us.

CerMark® Process: All products work with most uncoated metals. Excellent for metal marking with a CO_2 laser.
Read instructions carefully before use.
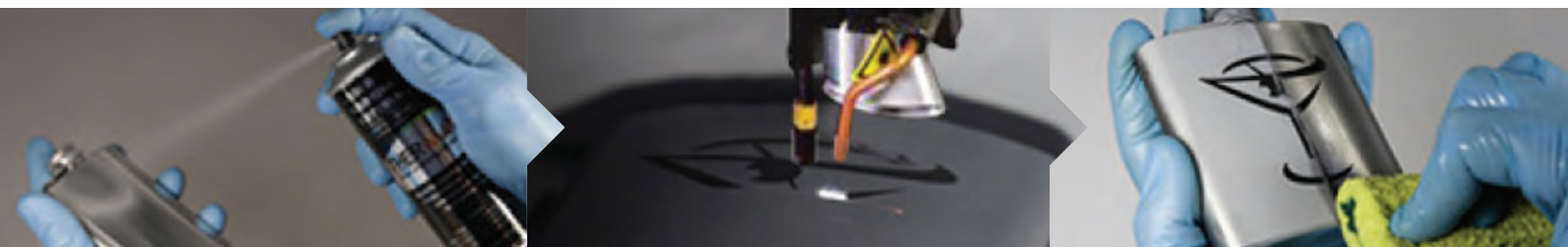
Paint & diluters

Gravolaque

Polyurethane, ultra shine paint, available in 9 colours, Gravolaque is designed to colour Gravoglas™ 1, Gravoglas™ 2-PLEX™ subsurface, anodised aluminium and brass.
Bottle delivered with 1 spout for :
- Direct & precise application
- Use of appropriate quantity

Bottle 250 ml (8.45oz)

Spare spout for Gravolaque	72204

white	72195 (*)
yellow	72200 (*)
red	72196 (*)
green	72199 (*)
blue	72197 (*)
silver	72202 (*)
gold	72198 (*)
radiant gold	72201 (*)
black	72194 (*)

For more colours, please contact us.

Diluters

Application diluter 1LTR (33.8oz)	19469 (*)
Cleaning diluter for tools 1LTR (33.8oz)	19468 (*)

Nitrolaque

Versatile and fast drying, for colouring rotary engraving on metal, steel and plastic (except Gravoglas™ 1).
Bottle 250 ml (8.45oz)

white	30373 (*)
red	30375 (*)
blue	30377 (*)
black	30374 (*)

For more colours, please contact us.

Application kit

Application kit including:	72886
- Spatula 75 x 60 mm (2.95" x 2.36")	72885
- Rubafix roll	16248
- Tissues	24296

(items can be ordered separately)

* These items are shipped via ground transportation. For other means of transport, please consult us.

Gravolaque Process:
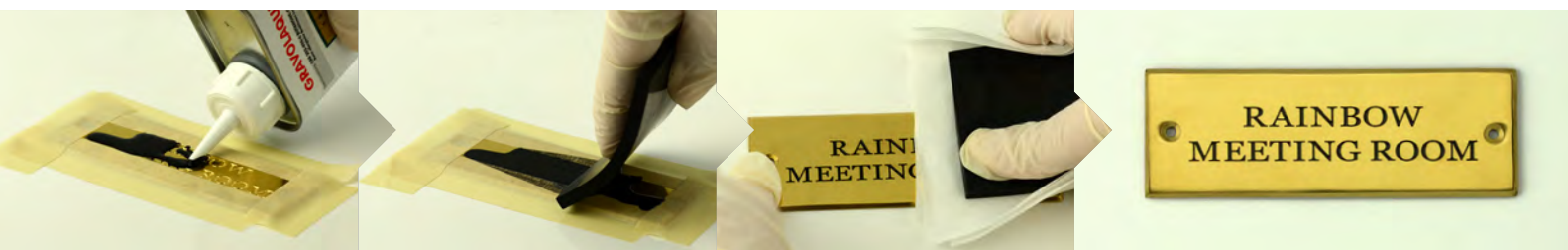
Oxydising agents

Gravoxide
Designed to blacken fine engraving on Gravometall.

Rotary engraving only.
Packaging: 90 ml (3 oz) bottle with application pad.
Ref. 21129 (*)

Aloxide
Designed to blacken fine engraving on glossy anodised aluminium.

Rotary engraving only.
Packaging: 90 ml (3 oz) bottle with application pad.
Ref. 21130 (*)

Cold wax sticks

Suitable for colouring small characters (e.g. on pet medals). Range of 8 colours available. Packaging: box of 5 sticks of the same colour.

white	20215	blue	20216
yellow	20217	silver	20214
red	20220	gold	20219
green	20221	black	20218

ArtFoil™

Rolls
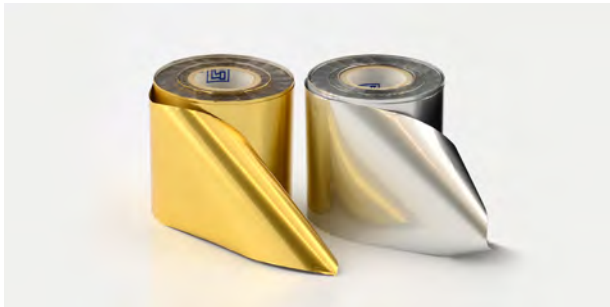
silver	72884
gold	72883

To use with the ArtFoil solution for hot-stamping. Available in 2 colours. Roll width 50 mm (1.97"), length 61 m (66 yds).

* These items are shipped via ground transportation. For other means of transport, please consult us.
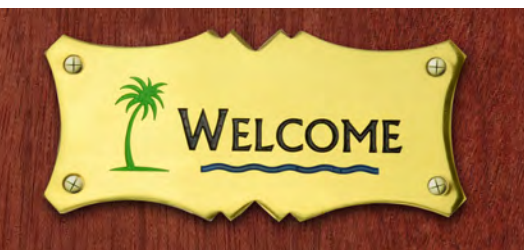
Lubrication

Soluble oil (6% / water litre)
For glass engraving only.
Automatic dispensing with
M40 Gift lubricating device.
Volume: 1 LTR (33.8oz)
Ref. 12913

Engravolube solution
For non-ferrous metal engraving.
Manual dispensing at cutter tip.
Volume: 240 ml (8oz)
Ref. 26887

Vargol
Lubricant for VA. circular saws.
Synthetic oil for use with metals.
Application with Vargol dispenser.
Volume: 500 ml (16.9oz)
Ref. 21780

Lubricating bottle
Vargol dispenser for VA. saws.
Ref. 21781

Tarfil™ AT
Designed for metal engraving.
Manual dispensing at cutter tip.
Bottle: 215 g (7.58oz)
Ref. 19526

Vectolub™ lubricant oil
For non ferrous metal engraving.
Automatic dispensing with IS
Spray Mist lubricating device.
Volume: 2 LTR (67.6oz)
Ref. 23494

Polycoupe™ lubricant spray
For non ferrous metal engraving.
Manual dispensing at cutter tip.
Spray: 250 ml (8.45oz)
Ref. 19527 (*)

Surfex® lubricant
For Aluminium engraving
and cutting only.
Manual dispensing
Bottle: 1 LTR (33.8oz)
Ref. 30368

Cleaning

Gravoclean
Multi-use green cleaner. Ideal to
remove marks on plates before or
after engraving. Non-agressive to
acrylics and ABS.
Available in spray (ready-to-use
solution) or non-fluffy wipes.
Spray 750 ml (25.36oz): **Ref. 73180**
Box of 50 wipes: **Ref. 73181**

Laser optics cleaner
This kit will enable you to
maintain and remove fumes
and back-splattered debris
to minimize the absorption
and excessive heat load, thus
prolonging the optics lifetime.
Kit containing 125ML (4.22oz)
solution, application pads and
tissues: **Ref. 26327 (*)**

Universal cleaner
Ideal for cleaning metal and
plastic surfaces (except ABS).
Apply with a tissue.
Volume: 1 LTR (33.8oz)
Ref. 23913 (*)

Industrial degreasing spray
Recommended for removing
glue marks on metals only.
Manual spraying.
Volume: 500 ml (16.9oz)
Ref. 23912 (*)

* These items are shipped via ground transportation. For other means of transport, please consult us.

Glues

Spray mount
Aerosol for non-permanent
fixing and repositioning of
lightweight materials.
Not recommended with
expanded polystyrene.
Volume: 500 ml (16.9 oz)
Ref. 23914 (*)

Gravofix
Tin of glue especially designed
for fixing plastic-backed pins
to your badges.
Volume: 250 ml (8.45 oz)
Ref. 19360 (*)

Caution: It is of utmost importance to apply tape or glues on clean surfaces to get perfect adhesion.

Fixing tapes

For long-term mounting of engraved plates.

Type	Use	Sizes	Ref.
Double-sided	smooth surfaces, can be used to fix Braille beads	14 mm x 50 m (0.55 "x 55 yds)	30369
Double-sided	smooth surfaces	19 mm x 50 m (0.75"x 55 yds)	30370
Double-sided	ideal for electrical switchboards	50 mm x 50 m (1.97 "x 55 yds)	30372
Foam double- sided	ideal for rough, textured surfaces	19 mm x 66 m (0.75"x 72 yds)	47237
Transfer	ideal for curved surfaces, immediate adhesion	20 mm x 30 m (0.79"x 33 yds)	21121

Adhesive backing service

We can apply adhesive backing to badges, nameplates, strips and material sheets. Adhesive backing is applied before cutting material.
Our adhesives are compatible for indoor and outdoor use

Adhesive type	Main applications	Substrate finish	Long-term T°C > 24h
467MP	Fixing of industrial labels, front panels, signs and personalisation plates on metals and plastics	Smooth	-40°C +150°C (-40°F +302°F)
468MP	Fixing of industrial labels, front panels, signs and personalisation plates on metals and plastics	Smooth, rough, textured	-40°C +150°C (-40°F +302°F)

Caution before use:
Clean any grease marks from the substrate before sticking the plate. As glue reaches full adhesion capacity after 24h, it is advised not to move
the plate before then

* These items are shipped via ground transportation. For other means of transport, please consult us.
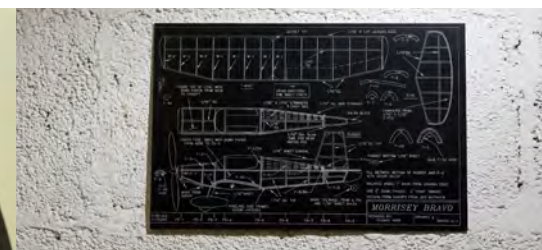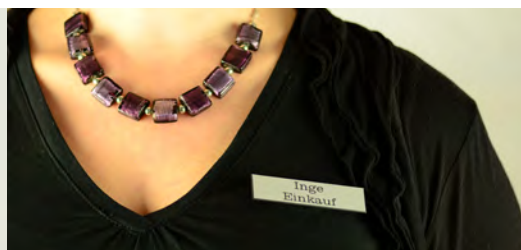
Speciality tapes
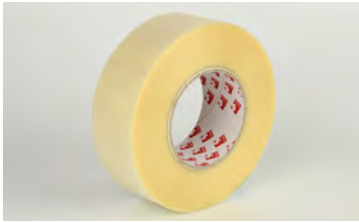
Protective adhesive tape
To protect jewellery and brass
door plates during engraving.
Size: 50 mm x 100 m
(1.97" x 109 yds)
Ref. 19528

Adhesive mounting tape
For temporary mounting of plates
Size: 25 mm x 25 m
(0.98" x 27 yds)
Ref. 20151 (*)

Gravogrip™

Flexible material placed on your engraving / marking table** to maintain the material to be engraved or cut into place.

** For IM4, M20, IS200 & M40 use a support table, see p.15.

Choose the size that will best suit your machine's working area.

78056	Full sheet 1220 x 610 mm (48" x 24")
67252	610 x 610 mm (24" x 24")
71052	610 x 305 mm (24" x 12")
45696	310 x 215 mm (12".20 x 8.46")
71053	305 x 200 mm (12" x 7.87")
71054	225 x 80 mm (8.85" x 3.15")
70996	120 x 100 mm (4.72" x 3.93")
72027	120 x 80 mm (4.72" x 3.15")
71056	cut-to-size on request

Gravogrip™ process:

* These items are shipped via ground transportation. For other means of transport, please consult us.

Ball chains

Stainless steel:
Beads of 2,42 mm (.095") diameter.

114 mm (4.5")

For attaching tags and labels to a wide range of objects (e.g. suitcases, pipes, key rings etc.)

Coloured stainless steel bead of 2,42 mm (.095"), 114 mm (4.5").

	Pack of 10	Pack of 50
silver	69880	69881
gold	69883	69884
blue	69446	69639
red	69447	69640
green	69448	69641
purple	69449	69642
orange	69450	69643
pink	69451	69644
black	69452	69645
white	69453	69646

Nickel-plated brass:
Beads of 2.25 mm (.088") diameter.

100 x 150 mm (5.91") with fastener	19534
10 x 1.5 m (59") without fastener	19535
box of 100 fasteners	19536

Ties

Ideal to fix all your medals and tags.
"S"-Hook (pack of 25).

Zinc-plated steel, length 18 mm (0.7")
Ref. 23919

Golden brass, length 21 mm (0.82")
Ref. 30152

Zinc-plated brass, length 26 mm (1.02")
Ref. 30151

Ring (pack of 100)

Nickel-plated steel
ø 13 mm (0.51")
Ref. 19532

Nickel-plated steel
ø 20 mm (0.78")
Ref. 19530

Golden brass
ø 13 mm (0.51")
Ref. 19533

Golden brass
ø 20 mm (0.78")
Ref. 19531

Stainless steel supports

A simple solution for labelling pipes which are too hot using Gravofoil (i.e.over 70° C / 158°F)
Fix your label onto a stainless steel support, ensuring that the label is not in direct contact with the pipe.
Use a collar to attach the support to the pipe.
Slip through the cross-shaped imprints before tying to the pipe.
Rounded corners. Hole diameter 3.2 mm (0.125")

Stainless steel supports	Part No.
80 x 40 mm (3.15 x 1.6")	19547
120 x 60 mm (4.72 x 2.36")	19548
200 x 100 mm (7.87 x 3.94")	19549

Plastic collars	Part No.
50 fastening collars	19546
Steel collars	**Part No.**
25 m (27 yds) & 50 heads	19553

Stainless steel collars	Part No.
3 m (3.28 yds) & 8 heads	19550
25 m (27 yds) & 50 heads	19551

Pack of 10

Wooden support

Wooden support to enhance engraved plates
Dimensions: 340 x 240 x 20 mm (13.4 x 9.45 x 0.79")
Composition: tropical hardwood
Indoor & outdoor use
Ref. 19470

Screw and screw cover

For a perfect finish to your mounted plates.

	Gold	Silver
100 screws 4 x 20 mm (0.16 x 0.79"), 12 mm (0.47") cover head	25731	25732
100 screws 4 x 30 mm (0.16 x 1.18"), 15 mm (0.59") cover head	25733	25734
100 screws 4 x 30 mm (0.16 x 1.18"), 18 mm (0.71") cover head	25735	25736

Spacer fasteners

The ideal fasteners to add a finishing touch to professional plates, hotel signage etc.
Available in several models. Delivered in sachets of 4 fasteners.

Part No.	Description	Finish	Size	Distance from the wall	Material thickness	Inside Diameter	Pack of
19471	4 rounded spacers	golden	Ø 15 mm (0.59")	26 mm (1.02")	0 - 14 mm (0 - 0.55")	9 mm (.35")	4
19472	4 rounded spacers	silver	Ø 15 mm (0.59")	26 mm (1.02")	0 - 14 mm (0 - 0.55")	9 mm (.35")	4

Plant label holder

Ideal for 1.6 mm (1/16") thick material.

Aluminium
Tilted model, shaft length 300 mm (11.81")
for labels 120 x 53 mm (4.72 x 2.08")
Ref. 30149

Zinc-plated steel
Straight model, shaft length 600 mm (23.62")
for labels 120 x 48 mm (4.72 x 1.89")
Ref. 30150

Identification labels for electrical applications

Choose your colours among the corresponding material range.

CABLES TAGS WITH NOTCHES
Gravoply™ 1
1.5 mm (1/16") thick
Size 150 x 11 mm (5.90 x .43")
with 4 die-cut sides for mounting with hose clamps

TIE ON CABLE TAGS CUT CORNERS
Gravoply™ 2
0.8 mm (1/32") thick
Size 85 x 12 mm (3.34 x .47")
With 4 oblong holes 8 x 2 mm (.31 x .078")
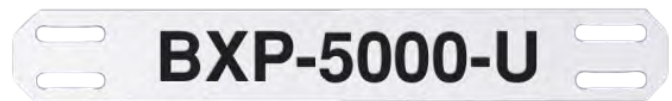
TIE ON CABLE TAGS TYPE 425
Gravoxal™ glossy black
1.5 mm (1/16") thick
Size 60 x 18 mm (2.36 x .70")
With rounded corners R = 3 mm (.11")
With 4 oblong holes 10 x 2.2 mm (.39 x .08")

TIE ON CABLE TAGS TYPE 430
Gravoply™ 1 or Gravoply™ 2
0.8 mm (1/32") thick
Size 120 x 20 mm (4.72 x .78")
With 4 oblong holes 6.5 x 3 mm (.25 x .11")
Available with 2 pre-engraved lines on request
Also available in 1.6 mm (1/16") thick material on request

CIRCULAR BLANKS TYPE 420
Gravoply™ 1 or Gravoply™ 2
20 or 25 mm (.78 or .98") Ø
With 3 holes of 2.5 mm (0.1") Ø

Gravoxal™
1 mm (.039") thick
25 mm (0.98") Ø
With 3 holes of 2.5 mm (.1") Ø

LEGEND PLATES TYPE 440

For identifying electrical switches
Size 30 x 40 mm (1.18 x 1.57")
With a Ø 22.5 or 24.5 mm (0.88 or 0.96") hole off-centre
Packaged by 50 units of identical reference

	Gravoply™ 1 - 1,6 mm (1/16 ")	Gravoply™ 2 - 0,8 mm (1/32")		Gravoply™ 2 double-sided – 0,8 mm (1/32")	
	Diameter 22,5 mm (0.88")	Diameter 22,5 mm (0.88")	Diameter 24,5 mm (0.96")	Diameter 22,5 mm (0.88")	Diameter 24,5 mm (0.96")
Black/White	19243	22071	19240	-	-
White/Black	19244	22072	19241	-	-
Red/White	19245	22073	22066	-	-
Blue/White	19246	22074	22067	-	-
Black/White /Red	-	-	-	22075	22068
White/Black /Yellow	-	-	-	22076	22069
Green/White/Blue	-	-	-	22077	-

Other dimensions, colours or materials on request

STRIPS

Minimum of order : 25 pieces of identical reference

	Gravoply™ 2 - 1.5 mm (1/16")							
	610x10 mm (24"x0.39")		610x15 mm (24"x0.59")		610x20 mm (24"x0.79")		610x30 mm (24"x1.18")	
	w/o adh	with adh.	w/o adh	with adh.	w/o adh	with adh.	w/o adh	with adh.
Black/White	19267	19283	19268	19284	19269	19285	19270	19286
White/Black	19271	19287	19272	19288	19273	19289	19274	19290
Red/White	19275	19291	19276	19292	19277	19293	19278	19294
Blue/White	19279	19295	19280	19296	19281	19297	19282	19298

Other dimensions, colours or materials on request
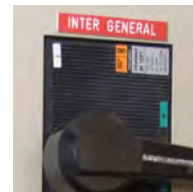
LABELS FOR ELECTRICAL BOARDS

Packaged by 50 units of identical reference

	Gravoply™ 2 - 1.5 mm (1/16") with adh.			
	50x15 mm (1.97"x0.59")	60x15 mm (2.36"x0.59")	60x20 mm (2.36"x0.79")	80x40 mm (3.15"x1.57")
Black/White	19251	19255	19259	19263
White/Black	19252	19256	19260	19264
Red/White	19253	19257	19261	19265
Blue/White	19254	19258	19262	19266

MECHANICAL FASTENINGS

Stainless steel supports, plastic collars,
steel collars, ball chains, etc. : see page 60

Metallex™ or Gravoply™ 2 inlaid plates

Available in 5 styles

Inlaid and id plates are blanks produced by special in-house tools. For higher volume orders, they offer better value than an equivalent cut to size service.

Our stamped plates are made of Metallex™ or Gravoply™ 2, thickness 0,8 mm (.030") with 4 rounded corners r = 2 mm (0.079").

A.	size 27 x 8 mm (1.063 x 0.315")
B.	size 27 x 12.5 mm (1.063 x 0.492")
C.	size 27 x 18 mm (1.063 x 0.709")
D.	size 22 x 10 mm (0.866 x 0.394")
E.	size 22 x 22 mm (0.866 x 0.866")
F.	size 27 x 27 mm (1.063 x 1.063")
G.	size 27 x 19 mm (1.063 x 0.748")

A.   B.   C. G.

E. F.

D.
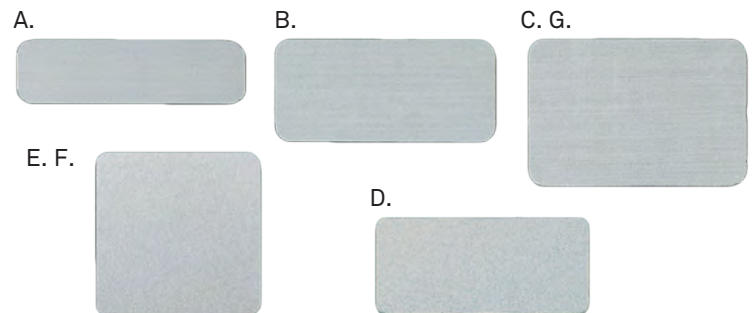
ID plates and labels

Available in 6 styles

Our ID plates and labels are made of Gravoply™ 1, Gravoply™ 2, Metallex™, 0.8 mm (.030") thick or Gravoxal™, 1.0 mm (.040") thick and feature two drilled holes:

1.	Ø 1.5 mm (0.059"), hole spacing 14 mm (0.551")
2.	Ø 2.2 mm (0.087"), hole spacing 21 mm (0.827")
2a.	Ø 2.5 mm (0.098"), hole spacing 18 mm (0.709")
3.	Ø 2.2 mm (0.087"), hole spacing 26 mm (1.024")
3a.	Ø 2.5 mm (0.098"), hole spacing 25 mm (0.984"), r = 1.25 mm (0.049")
4.	Ø 2.5 mm (0.098"), hole spacing 30 mm (1.181")

1. size 18 x 9 mm (7.09 x 3.54")

14   1,5   9   18

2. size 25 x 10 mm (9.84 x 3.94")

21   2,2   10   25
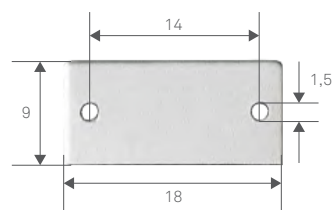
2a. size 25 x 10 mm (9.84 x 3.94")

18   2,5   10   25
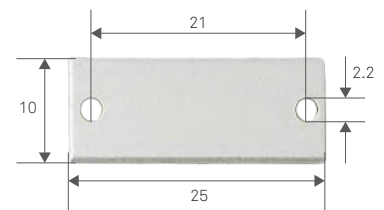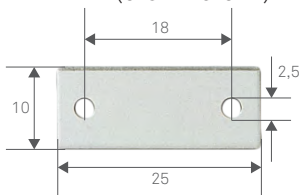
3. size 30 x 10 mm (11.81 x 3.94")

26   2,2   10   30
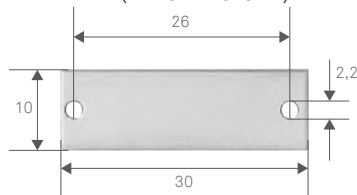
3a. size 30 x 10 mm (11.81 x 3.94")

r=1,25   25   2,5   10   30

4. size 37 x 13 mm (14.57 x 5.12")

30   2,5   13   37

Tags

Choose your tags from our selection

ALUMINIUM TAGS
Anodised aluminium
1.5 mm (1/16") thick
Hole diameter 4 mm (.15")
Packaged by 10 units of identical reference

	Round			Shaped		Rectangular
	30 mm (1.18")	38 mm (1.49")	50 mm (1.96")	65 x 30 mm (2.55" x 1.18")	90 x 40 mm (3.54" x 1.57")	40 x 16 mm (1.57" x 0.62")
red	30137	30141	30145	19193	19197	19189
blue	30138	30142	30146	19194	19198	19190
green	30139	30143	30147	19195	19199	19191
gold	30136	30140	30144	19196	19200	19192

Custom-made key tags

We can custom manufacture
your plastic tags for you.

Choose the plastic material, colour and
thickness (2.4 mm (3/32") recommended)
for your custom-made key tag blanks.
Packaged by 50 identical references
See range of fasteners p.60.

Round tag
Ø 30 mm (1.18")
Hole diameter 4 mm (0.16")

Teardrop tag
Size 46 x 28 mm
(1.81 x 1.10")
Hole diameter 4 mm (0.16")

Hexagonal tag
Size 58 x 37 mm
(2.28 x 1.45")
Hole diameter 4 mm (0.16")

Choose your badges from our selection

Ready-made badges

Ready-made badges save you time and money. Choose your badge with the fixing from our selection; all you have to do is engrave!
2.4 mm thick, square corners, bevelled edges, ready-attached metal fasteners; see range of fasteners for heat fusing overleaf.
Packaged by 50 identical badges.

Gravoply™ 1

	64 x 16 mm (2.51" x 0.62")			75 x 20 mm (2.95" x 0.78")		
	Safety pin	Snap clip	Clutch	Safety pin	Snap clip	Clutch
white / black	30169	30171	30172	30205	30207	30208
yellow / black	30187	30189	30190	30223	30225	30226
red / white	30175	30177	30178	30211	30213	30214
azure blue / white	30181	30183	30184	30217	30219	30220
pine green / white	30193	30195	30196	30229	30231	30232
black / white	30163	30165	30166	30199	30201	30202

Gravoply™ 2

	64 x 16 mm (2.51" x 0.62")			75 x 20 mm (2.95" x 0.78")		
	Safety pin	Snap clip	Clutch	Safety pin	Snap clip	Clutch
white / black	30241	30243	30244	30277	30279	30280
yellow / black	30259	30261	30262	30295	30297	30298
red / white	30247	30249	30250	30283	30285	30286
blue / white	30253	30255	30256	30289	30291	30292
pine green / white	30265	30267	30268	30301	30303	30304
black / white	30235	30237	30238	30271	30273	30274

Metallex™

			64 x 16 mm (2.51" x 0.62")			75 x 20 mm (2.95" x 0.78")		
			Safety pin	Snap clip	Clutch	Safety pin	Snap clip	Clutch
glossy silver / black			30313	30315	30316	30337	30339	30340
brushed silver / black			30325	30327	30328	30349	30351	30352
brushed gold / black			30319	30321	30322	30343	30345	30346
glossy gold / black			30307	30309	30310	30331	30333	30334

Custom-made badges

We can custom fabricate your plastic or brass sheet badge. Specify: shape, size and material, fastener, fused, cemented or bonded hardware; rounded or square corners; bevel or no-bevel finished edges.
Hot-stamping / Silk-screen / Digital printing to add a coloured logo or inscription on badges, ID plates, etc.

Type of fasteners for heat fusing in our workshop

Clutch
Ref. 30358

Snap clip - swivel
Ref. 30357

Safety pin
Ref. 30355

Create your own badges

If you prefer to make your badges yourself, choose from our Gravograph materials and select the fixing among the selection below.

Hardware for self-assembly

Use Gravofix (except model G) to apply the fastener of your choice on your badge. Quick and easy, durable hold.
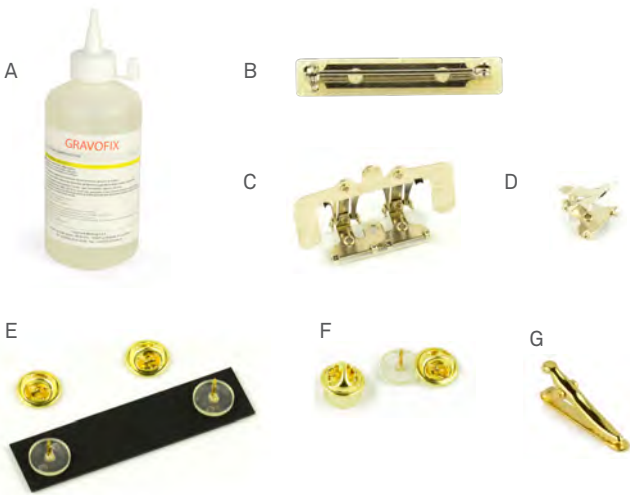
	Dimensions	Packaged by	Ref.
A - Gravofix (250 ml - 8.45 oz)	-	1	19360
B - Safety pin	42 x 8 mm (1.65" x 0.31")	50	19345
A+B - Gravofix kit (Gravofix A + 100 safety pins B)	-	-	25730
C - Super clip	26 x 45 mm (1.02" x 1.77")	50	30361
D - Snap clip - swivel	Ø 12mm (0.47")	50	19346
E - Clutch bar	-	20	30362
F - Pin with clutch	Ø 11mm (0.43")	50	30363
G - Crocodile Clip *	40 x 6 mm (1.57" x 0.23")	10	30367

* This badge fastener requires fixing with a 2-component bond.

Pressure-sensitive hardware

Simple, quick and effective. 6 models of adhesive backing hardware. Simply peel back the liner and attach the adhesive bonds to the badge.
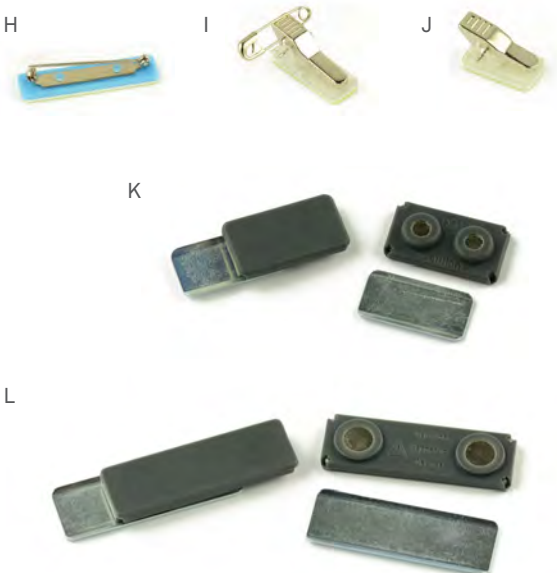
	Dimensions	Packaged by	Ref.
H - Safety pin	42 x 9 mm (1.65" x 0.35")	50	30364
I - Universal clip with pin	24 x 12 mm (0.94" x 0.47")	50	19358
J - Alligator clip	24 x 13 mm (0.94" x 0.51")	50	30366
K - Standard magnetic fastener	25 x 15 mm (0.98" x 0.59")	10	19362
L - Jumbo magnetic fastener	45 x 15 mm (1.77" x 0.59")	10	30365
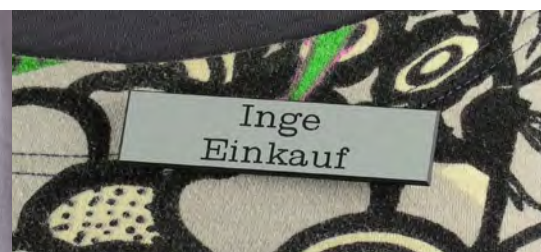
Plastic frames
Add a touch of elegance to any badge.
Ideal for 0.8 mm (1/32") thick material.
Delivered without fastener.

66 mm (2.59")

21 mm (.82")

16 mm (0.63")

71 mm (2.79")
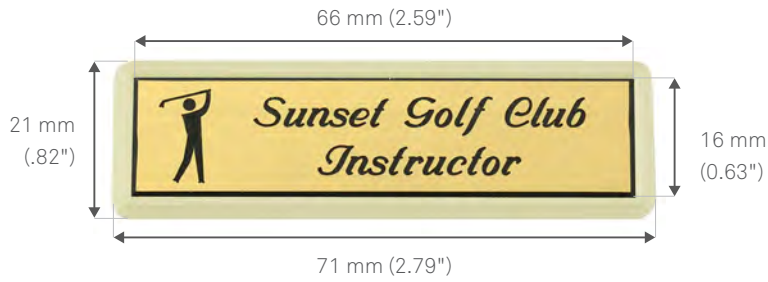
White
Packaged by 50
Ref. 19353

Silver
Packaged by 50
Ref. 19355

Gold
Packaged by 50
Ref. 19354

Black
Packaged by 50
Ref. 19352

Card holders
Another way to fix your badge or card.

90 mm (3.54")

60 mm (2.36")

82 mm (3.22")

92 mm (3.62")

Visiteur

Swivel fastener with clip
Packaged by 50
Ref. 19357

Clear vinyl badge holder
Packaged by 50
Delivered without swivel fastener
Ref. 19356
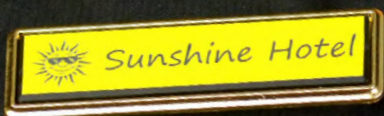
Premium solid brass door plates

All door plates have a varnished surface to protect against oxidation.

A. 110 x 40 mm
(4.33" x 1.58")

B. 105 x 42 mm
(4.14" x 1.65")

C. 105 x 54 mm
(4.14" x 2.13")

D. 100 x 40 mm
(3.94" x 1.58")

E. 83 x 48 mm
(3.27" x 1.89")
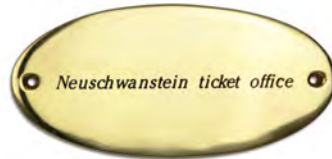
F. 135 x 65 mm
(5.32" x 2.56")

G. 130 x 30 mm
(5.12 x 1.18")

H. 97 x 33 mm
(3.82" x 1.30")

I. 160 x 60 mm
(6.30" x 2.36")

J. 100 x 28 mm
(3.94" x 1.10")

K. 122 x 42 mm
(4.81" x 1.65")

L. 115 x 40 mm
(4.53" x 1.58")

M. 175 x 100 mm
(6.90" x 3.94")

N. 66 x 37 mm
(2.60" x 1.46")

		A	B	C	D	E	F	G	H	I	J	K	L	M	N
Packaged by	1	30080	21812	22088	22089	22090	22091	22092	22093	22094	22095	22096	30085	30083	27487
	6	78937	78927	78929	78935	78932	78931	78938	78936	78926	78930	78928	78933	78934	78939

All door plates, except model J, are delivered with screws.

Gold'n door range

Very high quality varnish, easy to engrave.

U.1

U.2

V.1

V.2

W.1

W.2

X.

U.1	Rec'n Wave 150 x 50 mm (5.61" x 1.97")	48336
U.2		48335
V.1	Rec'n Round 145 x 45 mm (5.71" x 1.77")	48338
V.2		48337
W.1	Oval 135 x 65 mm (5.32" x 2.56")	48334
W.2		48333
X.	Domed 150 x 85 mm (5.91" x 3.35")	48339

Model X delivered with screws.

You can use Gravograph recommended colouring products to colour your engraved items. See p.55.

Custom door plates

Choose your colours among the corresponding material range.
Packaged by 5 units of identical reference.

A.

B.

C.

D.
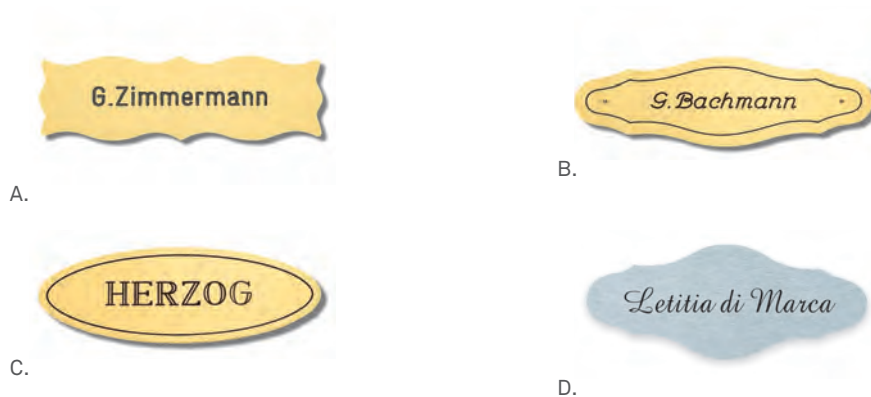
		Gravoply™ 1 1,6 mm (1/16")	Gravoply™ 2 1,5 mm (1/16")	Metallex™ 1,5 mm (1/16")	Gravometall™ 0,6 mm (.025")	Gravoxal™, steel look 1,5 mm (1/16")
A.	125 x 40 mm (4.93" x 1.58")	30086	30087	30088	30089	30102
B.	125 x 42 mm (4.93" x 1.65")	30090	30091	30092	30093	30103
C.	115 x 45 mm (4.53" x 1.77")	30094	30095	30096	30097	30104
D.	180 x 80 mm (7.09" x 3.15")	30098	30099	30100	30101	30105

Anodised aluminium range

A large and trendy range: 18 shapes, 10 colours, 180 models, packaged by 10 or 50.
Compatible engraving technologies: laser engraving*, rotary engraving, diamond marking.

* Golden and aluminium medals are not suitable for colour contrasting with laser engraving.

A
25 mm (0.98")
38 mm (1.49")

B
19 mm (0.74")
32 mm (1.25")

C
37 mm (1.45")
37 mm (1.45")

D
27 mm (1.06")
27 mm (1.06")

E
35 mm (1.37")
33 mm (1.29")

F
28 mm (1.1")
26 mm (1.02")

G
33 mm (1.29")
48 mm (1.88")

H
32 mm (1.25")
32 mm (1.25")

I
25 mm (0.98")
25 mm (0.98")

J
32 mm (1.25")
32 mm (1.25")

K
26 mm (1.02")
26 mm (1.02")

L
34 mm (1.33")
36 mm (1.41")

M
33 mm (1.29")
28 mm (1.1")

N
28 mm (1.1")
50 mm (1.96")

O
31 mm (1.22")
28 mm (1.1")

P
33 mm (1.29")
33 mm (1.29")

Q
38 mm (1.49")
38 mm (1.49")

R
25 mm (0.98")
25 mm (0.98")
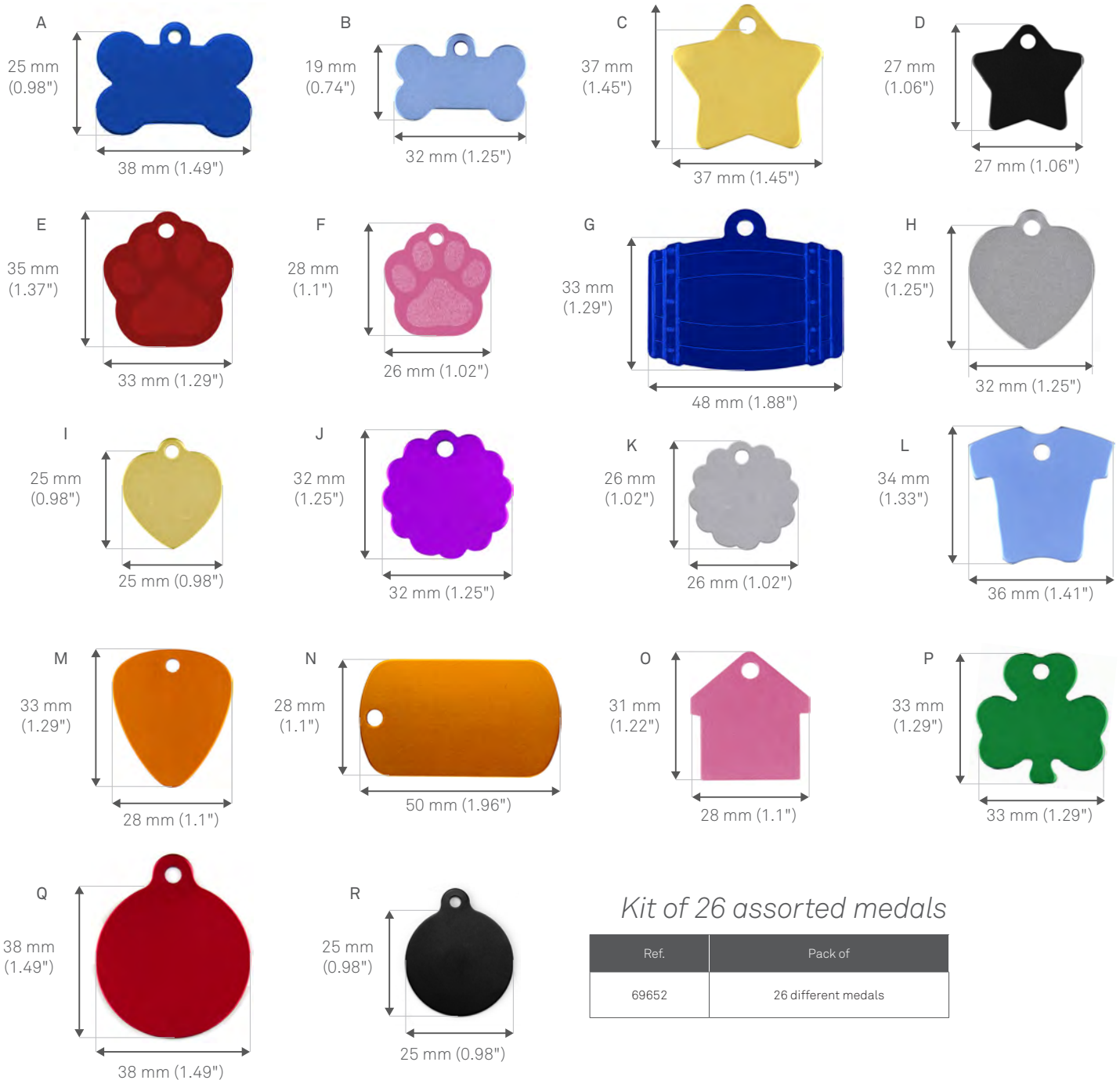
Kit of 26 assorted medals

Ref.	Pack of
69652	26 different medals

Anodising process may produce slightly different colours from one batch to another. Printed colours for indication only.

	Pack of	silver	gold	blue	light blue	red	green	purple	orange	pink	black
A	10	69285	69286	69287	69288	69289	69290	69291	69292	69293	69294
A	50	69479	69480	69481	69482	69483	69484	69485	69486	69487	69488
B	10	69295	69296	69297	69298	69299	69300	69301	69302	69303	69304
B	50	69489	69490	69491	69492	69493	69494	69495	69496	69497	69498
C	10	69375	69376	69377	69378	69379	69380	69381	69382	69383	69384
C	50	69569	69570	69571	69572	69573	69574	69575	69576	69577	69578
D	10	69385	69386	69387	69388	69389	69390	69391	69392	69393	69394
D	50	69579	69580	69581	69582	69583	69584	69585	69586	69587	69588
E	10	69305	69306	69307	69308	69309	69310	69311	69312	69313	69314
E	50	69499	69500	69501	69502	69503	69504	69505	69506	69507	69508
F	10	69315	69316	69317	69318	69319	69320	69321	69322	69323	69324
F	50	69509	69510	69511	69512	69513	69514	69515	69516	69517	69518
G	10	69355	69356	69357	69358	69359	69360	69361	69362	69363	69364
G	50	69549	69550	69551	69552	69553	69554	69555	69556	69557	69558
H	10	69265	69266	69267	69268	69269	69270	69271	69272	69273	69274
H	50	69459	69460	69461	69462	69463	69464	69465	69466	69467	69468
I	10	69275	69276	69277	69278	69279	69280	69281	69282	69283	69284
I	50	69469	69470	69471	69472	69473	69474	69475	69476	69477	69478
J	10	69425	69426	69428	69429	69430	69431	69432	69433	69434	69435
J	50	69619	69620	69621	69622	69623	69624	69625	69626	69627	69628
K	10	69436	69437	69438	69439	69440	69441	69442	69443	69444	69445
K	50	69629	69630	69631	69632	69633	69634	69635	69636	69637	69638
L	10	69395	69396	69397	69398	69399	69400	69401	69402	69403	69404
L	50	69589	69590	69591	69592	69593	69594	69595	69596	69597	69598
M	10	69405	69406	69407	69408	69409	69410	69411	69412	69413	69414
M	50	69599	69600	69601	69602	69603	69604	69605	69606	69607	69608
N	10	69365	69366	69367	69368	69369	69370	69371	69372	69373	69374
N	50	69559	69560	69561	69562	69563	69564	69565	69566	69567	69568
O	10	69345	69346	69347	69348	69349	69350	69351	69352	69353	69354
O	50	69539	69540	69541	69542	69543	69544	69545	69546	69547	69548
P	10	69415	69416	69417	69418	69419	69420	69421	69422	69423	69424
P	50	69609	69610	69611	69612	69613	69614	69615	69616	69617	69618
Q	10	69335	69336	69337	69338	69339	69340	69341	69342	69343	69344
Q	50	69529	69530	69531	69532	69533	69534	69535	69536	69537	69538
R	10	69325	69326	69327	69328	69329	69330	69331	69332	69333	69334
R	50	69519	69520	69521	69522	69523	69524	69525	69526	69527	69528

Stainless steel ball chains

Choose the chain assorted to your medal or mix colours! 10 colours available.

114 mm (4.5")

	Pack of 10	Pack of 50
silver	69880	69881
gold	69883	69884
blue	69446	69639
red	69447	69640
green	69448	69641
purple	69449	69642
orange	69450	69643
pink	69451	69644
black	69452	69645
white	69453	69646

Golden and nickel-plated brass

A

30 mm (1.18")

31 mm (1.22")

B

63 mm (2.48")

15 mm (.59")

71 mm (2.79")

*

C

58 mm (2.28")

12 mm (.47")

61 mm (2.40")

D

Ø 33 mm (1.29")

*

E

Ø 25 mm (0.98")

F

Ø 22 mm (0.86")
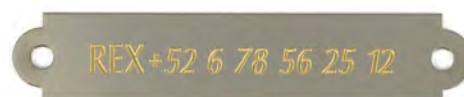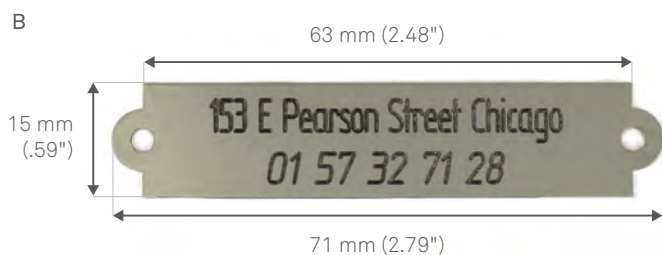
	Pack of	Golden	Nickel-plated	Hole diameter
A	10	23906	-	Ø 3.5 mm (0.14")
B	10	-	47820	Ø 3 mm (0.12")
	50	-	19306	
C	10	47818	47819	Ø 3 mm (0.12")
	50	19305	19304	
D	10	47813	47810	Ø 4 mm (0.16")
	50	22065	13012	
E	10	47812	47809	Ø 4 mm (0.16")
	50	13016	19318	
F	10	47811	47808	Ø 4 mm (0.16")
	50	19317	19316	

* You can use Gravograph recommended colouring products to colour your engraved item. See p.55.

Stainless steel range

(Pack of 10)

G
Ref. 30161
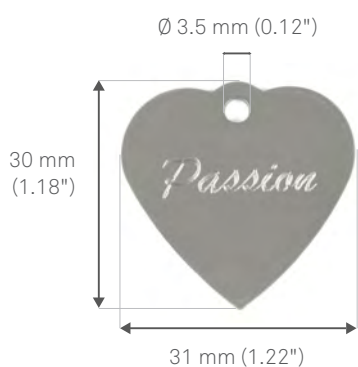
Ø 3.5 mm (0.12")
Ø 25 mm (1.98")
Ø 29 mm (1.14")

H
Ref. 30162

Ø 3.5 mm (0.12")
Ø 34 mm (1.33")
Ø 34 mm (1.33")

I
Ref. 23907

Ø 3.5 mm (0.12")
30 mm (1.18")
31 mm (1.22")

Ties

Ideal to fix all your medals and tags.

"S"-Hook (pack of 25).

Zinc-plated steel, length 18 mm (0.7")
Ref. 23919

Golden brass, length 21 mm (0.82")
Ref. 30152

Zinc-plated brass, length 26 mm (1.02")
Ref. 30151

Ring (pack of 100)

Nickel-plated steel
ø 13 mm (0.51")
Ref. 19532

Nickel-plated steel
ø 20 mm (0.78")
Ref. 19530

Golden brass
ø 13 mm (0.51")
Ref. 19533

Golden brass
ø 20 mm (0.78")
Ref. 19531
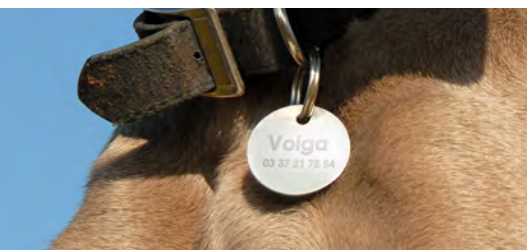
A selection of key rings to personalize. Different shapes, different materials.
You can use Gravograph recommended colouring products to colour your engraved item. See p.55.

Aluminium hotel key rings

Compatible engraving technologies: rotary and laser engraving.

29 mm (1.15")

88 mm (3.4")

Rectangular
Silver: **Ref. 30132**
Gold: **Ref. 30133**

29 mm (1.15")

80 mm (3.15")

Rounded
Silver: **Ref. 30134**
Gold: **Ref. 30135**
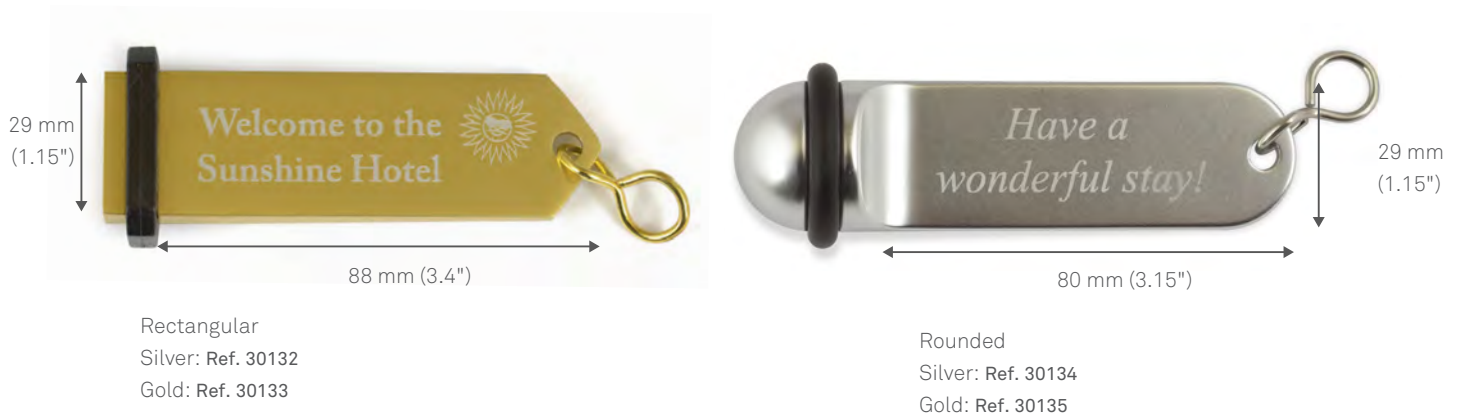
Nickel key ring with matt finish

Compatible engraving technologies: rotary engraving and diamond marking.

13 mm (.5")

41 mm (1.6")

Ref. 21816
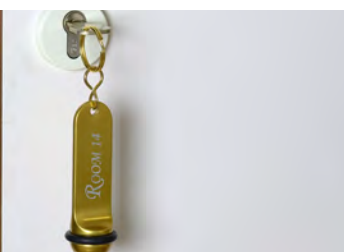
Aluminium key rings

Compatible engraving technologies: diamond marking, rotary and laser engraving.
(Pack of 10, delivered without ties).

37 mm (1.45")
37 mm (1.45")
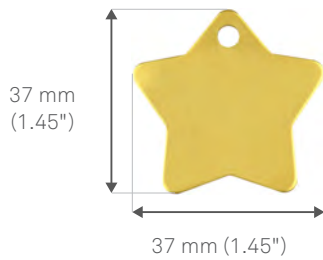
Star
Silver: Réf. **69375**
Gold: Réf. **69376**

32 mm (1.25")
32 mm (1.25")
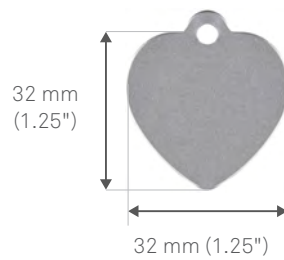
Heart
Silver: Réf. **69265**
Gold: Réf. **69266**

32 mm (1.25")
32 mm (1.25")
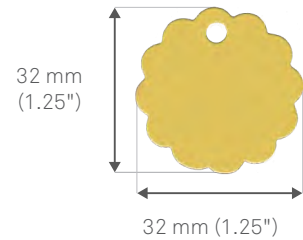
Cloud
Silver: Réf. **69425**
Gold: Réf. **69426**

28 mm (1.1")
50 mm (1.96")
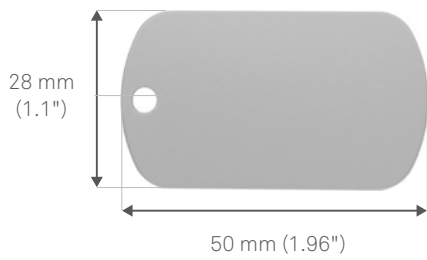
G.I tag
Silver: Ref. **69365**
Gold: Ref. **69366**

31 mm (1.22")
28 mm (1.1")
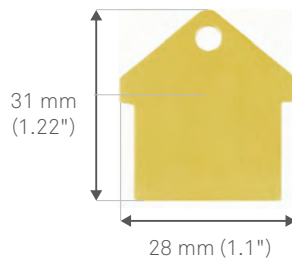
House
Silver: Ref. **69345**
Gold: Ref. **69346**

33 mm (1.29")
33 mm (1.29")
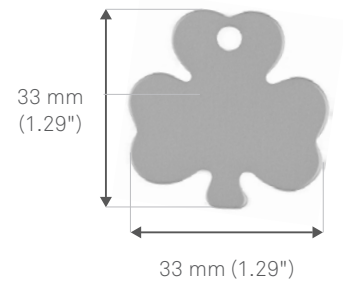
Clover
Silver: Ref. **69415**
Gold: Ref. **69416**

Ties

Ring (pack of 100).

Nickel-plated steel
ø 13 mm (0.51")
Ref. **19532**

Nickel-plated steel
ø 20 mm (0.78")
Ref. **19530**

Golden brass
ø 13 mm (0.51")
Ref. **19533**

Golden brass
ø 20 mm (0.78")
Ref. **19531**
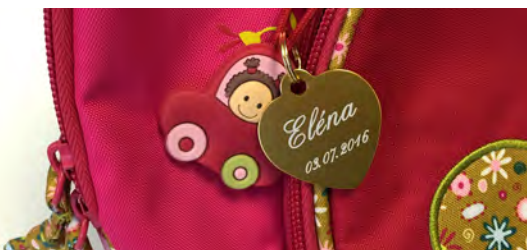
High quality metallic nameplates for gifts, gift boxes and art objects.

With hole diameter 3 mm (1/8")

Packaged by 50 units of identical reference.
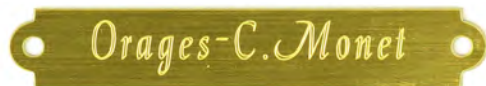
	Metallex™ 1.5 mm (1/16")*	Gravometall™ 0.6 mm (.025")*	Gravoxal™, steel look 1.0 mm (.040")	Gravometall™ 0.6 mm (.025")	
				Satin gold	Glossy gold
114.3 x 19 mm (4.50 x 0.75")	30115	30116	30117	-	-
50.8 x 9.5 mm (2 x 0.37")	30109	30110	30111	-	-
63.5 x 9.5 mm (2.50 x 0.37")	30112	30113	30114	-	-
61 x 12 mm (2.40 x 0.47")	22078	-	30124	-	-
76.2 x 12.7 mm (3 x 0.50")	30118	30119	30120	-	-
71 x 15 mm (2.80 x 0.59")	22079	-	30125	-	-
89 x 15.9 mm (3.51 x 0.63")	30121	30122	30123	-	-
61 x 12 mm (2.40 x 0.47")	-	-	-	58786	58785
71 x 15 mm (2.80 x 0.59")	-	-	-	58788	58787

* Choose the colour among Metallex™ and Gravometall™ material ranges.

Self-adhesive

Packaged by 50 units of identical reference.

	Gravometall™ 0.6 mm (.025")		Gravoxal™, steel look 1.0 mm (.040")
40 x 10 mm (1.58 x 0.39") self-adhesive	satin silver	49125	
	satin gold	61323	30128
	glossy gold	49577	
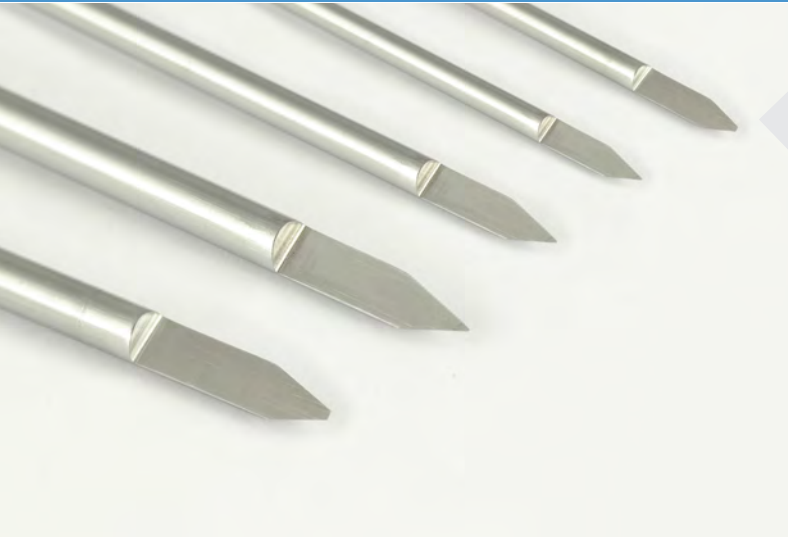
ONECUT

Efficient and convenient!
Most standard cutters are available with either a stainless steel shaft or a micrograin carbide shaft

TWINCUT

The composition tool!
8 insert profiles accessible with a single tool holder
Economical and multifunctional.

PERCUT

Productivity and endurance!
Short tools for demanding machining applications requiring a collet or high-speed spindle

Diamond

Delicacy and precision!
For scribing or dot marking metals and glass.

Rotating or tracing diamonds available in the Onecut and Twincut ranges.

ENGRAVING

Compatible with: M20, IM4, IM3

CONICAL

	STEEL	CARBIDE
COMPATIBLE MATERIALS		
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	▪
Leathers and derived products		
Phenolic		▪
Gold/Silver	▪	▪
Aluminium/Brass	▪	◉
Steel/Stainless steel		

◉ Absolutely suitable ▪ Suitable

STEEL		A (MM-INCH)		CONICAL	A (INCH - MM)			CARBIDE
	48773	0,10	.004"		.004"	0,10		-
	48774	0,25	.010"		.010"	0,25		48793
	48775	0,32	.013"	θ =22,5°	.013"	0,32		48794
48810 - 01.12	48776	0,50	.020"		.020"	0,50		48795
106 mm /4,173"	48777	0,75	.030"		.030"	0,75		48796	48821 - 01.12
	48778	1,00	.040"		.040"	1,00		48797
	48779	1,25	.050"	A	.050"	1,25		48798
	48780	1,50	.060"		.060"	1,50		48799
	48781	2,00	.080"		.080"	2,00		48800
	48782	3,00	.120"		.120"	3,00		48801

FLAT END CYLINDRICAL

	STEEL	CARBIDE
COMPATIBLE MATERIALS		
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	▪
Leathers and derived products		
Phenolic		▪
Gold/Silver	▪	▪
Aluminium/Brass	▪	◉
Steel/Stainless steel		

◉ Absolutely suitable ▪ Suitable

STEEL		A (MM-INCH)		FLAT END CYLINDRICAL	A (INCH - MM)			CARBIDE
	48783	1,00	.040"		.040"	1,00		-
51356 - 01.12	48784	1,50	.060"		.060"	1,50		-
106 mm /4,173"	48785	2,00	.080"		.080"	2,00		-	51372 - 01.12
	48786	2,50	.100"	A	.100"	2,50		-
	48787	3,00	.120"		.120"	3,00		51372

ROUND END CYLINDRICAL

	STEEL
COMPATIBLE MATERIALS	
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉
Leathers and derived products	
Phenolic	
Gold/Silver	▪
Aluminium/Brass	▪
Steel/Stainless steel	

◉ Absolutely suitable ▪ Suitable

STEEL		A (MM-INCH)		ROUND END CYLINDRICAL
	48788	1,00	.040"	
51365 - 01.12	48789	1,50	.060"	
106 mm /4,173"	48790	2,00	.080"	
	48791	2,50	.100"	A
	48792	3,00	.120"	

The use of a chip collector optimises the removal of swarf and greatly facilitates cleaning operations on engraved plates.

47645 (U.S. plug)
47642 (Eur plug)
47644 (Swiss plug)
47643 (British plug)

SPECIAL CONICAL

	θ = 37°	θ = 45°
COMPATIBLE MATERIALS		
Gravoply™, Metallex™ & Gravoglas™, Acrylic	▪	
Soft plastics	◉	
Leathers and derived products		◉
Phenolic		
Gold/Silver		

◉ Absolutely suitable ▪ Suitable

STEEL (SOFT PLASTICS)		A (MM-INCH)		SPECIAL CONICAL	A (INCH - MM)			CARBIDE (LEATHER)
48810 - 01.12	20171 (37°)	0,32	.013"	θ =37°				
106 mm /4,173"				A				20171 - 01.12
				θ =45°	.020"	0,50		48697 (45°)
				A				106 mm /4,173"

GRAVOGRAPH

Compatible with: M20, IM4, IM3

BEVELLING

STEEL	A (MM-INCH)	SPECIAL	A (INCH - MM)	CARBIDE
48802*	0,25 — .010"	15°	.010" — 0,25	-
48807*	0,25 — .010"	45°	.010" — 0,25	51368*
48806*	3,00 — .120"	90°	.120" — 3,00	51372*

48807 - 01.12   106 mm /4,173"

51372 - 01.12   106 mm /4,173"

* Recommended tools for the B4 bevelling machine.

CONICAL FOR BEVELLING

COMPATIBLE MATERIALS	STEEL	CARBIDE
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	■
Leathers and derived products		
Phenolic		■
Gold/Silver	■	■
Aluminium/Brass	■	◉
Steel/Stainless steel		

◉ Absolutely suitable   ■ Suitable

SCRIBING

CONICAL	A (MM - INCH)	CONICAL	A (INCH - MM)	CONICAL
20149	0,10 — .004"	126,5° / 90°	.004" — 0,10	33954 (20147)

106 mm /4,173"

Rotating / Non **Rotating**

Designed for Feather Touch Use

SCRIBING DIAMOND

COMPATIBLE MATERIALS	ROTATIING	NON ROTATING
Gravoply™, Metallex™ & Gravoglas™, Acryliques		
Leathers and derived products		
Glass & Mirrors	◉	■
Gold / Silver	■	◉
Aluminium / Brass	■	■
Steel/Stainless steel	■	

◉ Absolutely suitable   ■ Suitable

Scribing insert:
**IM3 / IF3 DIAMOND
VX DIAMOND SPINDLE
Non Rotating**

Scribing insert:
**Diamond spindle : M20 Diamant
M20 PIX
Non Rotating**

Scribing insert:
**Diamond nose (22884)
Mod B - Im4 R & RM - M20 &
M10 Jewel - RingCube -TagCube
Non Rotating**

CONICAL	A (INCH - MM)	DIAMOND
	.004" — 0,10	33827 (12224) L=25.0mm/1.000"
126,5°	.004" — 0.10	23061 L=15 mm/0,59"
	.004" — 0,10	28187 (33825-33823-33826) L=7.0 mm/0.275"

Rotating / Non **Rotating**

SCRIBING DIAMOND

COMPATIBLE MATERIALS	DIAMOND
Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Glass & Mirrors	■
Gold/Silver	■
Aluminium/Brass	◉
Steel/Stainless steel	■

◉ Absolutely suitable   ■ Suitable

ROTATING		CONICAL	A (INCH - MM)
52163	0,127 — .005"		
52183	0,254 — .010"		
51089	0,508 — .020"		
52184	0,762 — .030"		

106 mm /4,173"

110°   A

M20 = 78163

Rotating / Non **Rotating**

Designed for Feather Touch Use

SCRATCHING DIAMOND

COMPATIBLE MATERIALS	ROTATING
Gravoply™, Metallex™ & Gravoglas™, Acryliques	
Leather & Derived products	
Glass & Mirors	◉
Gold / Silver	
Aluminium / Brass	■
Steel / Stainless steel	
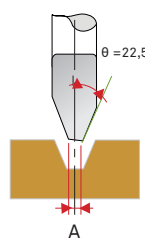
◉ Absolutely suitable   ■ Suitable

GRAVOGRAPH

ENGRAVING — Compatible with: TXL, IS200, M40, IS400, IS900, IS6000/7000/8000
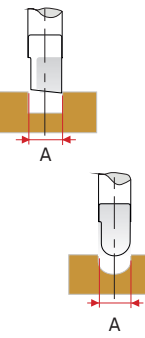
STANDARD CONICAL

	STEEL	CARBIDE
COMPATIBLE MATERIALS		
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	◉
Leathers and derived products		
Phenolic		◉
Gold/Silver	■	■
Aluminium/Brass	■	■
Steel/Stainless steel		

◉ Absolutely suitable   ■ Suitable

STEEL	A (MM - INCH)		CONICAL	A (INCH - MM)		CARBIDE
48808	0,10	.004"		.004"	0,10	-
48809	0,25	.010"		.010"	0,25	48820
48810	0,32	.013"		.013"	0,32	48821
48811	0,50	.020"		.020"	0,50	48822
48812	0,75	.030"		.030"	0,75	48823
48813	1,00	.040"		.040"	1,00	48824
48814	1,25	.050"		.050"	1,25	48825
48815	1,50	.060"		.060"	1,50	48826
48816	2,00	.080"		.080"	2,00	48827
48818	3,00	.120"		.120"	3,00	48828
48819	4,00	.160"		.160"	4,00	48829

θ = 22,5°

160 mm/6,299" · 48810 - 01.12 · 48821 - 01.12
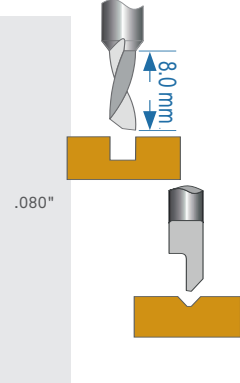
FLAT END CYLINDRICAL

	FLAT END	CYLINDRIC.
COMPATIBLE MATERIALS		
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	◉
Leathers and derived products		
Phenolic		
Gold/Silver	■	
Aluminium/Brass	■	
Steel/Stainless steel		

◉ Absolutely suitable   ■ Suitable

STEEL	A (MM - INCH)		FLAT END & CYLINDRICAL	A (MM - INCH)		STEEL
51355	1,00	.040"		.040"	1,00	51362
51356	1,50	.060"		.060"	1,50	51363
51358	2,00	.080"		.080"	2,00	51364
51359	2,50	.100"		.100"	2,50	51365
51360	3,00	.120"		.120"	3,00	51366
51361	3,50	.140"		.140"	3,50	51367
48834	4,00	.160"		.160"	4,00	48835

160 mm/6,299" · 51356 - 01.12 · 51365 - 01.12

ROUND END CYLINDRICAL

	1/4 ROUNDED	CYLINDRIC.
COMPATIBLE MATERIALS		
Gravoply™, Metallex™ & Gravoglas™, Acrylic		◉
Leathers and derived products		
Phenolic		
Gold/Silver	■	
Aluminium/Brass	◉	■
Steel/Stainless steel		

◉ Absolutely suitable   ■ Suitable

160 mm/6,299"
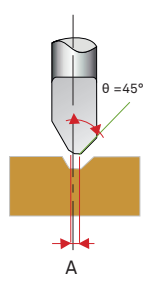
			ROUND END CYLINDRICAL	A (INCH - MM)		CARBIDE
80227	2.00	.080"		.013"	0,32	51373
				.020"	0,50	51374
				.030"	0,75	51375
				.050"	1,25	51376
				.080"	2,00	51377

8.0 mm · 51374 - 01.12

SPECIAL CONICAL

	CARBIDE
COMPATIBLE MATERIALS	
Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Soft plastics	
Leathers and derived products	◉

◉ Absolutely suitable   ■ Suitable
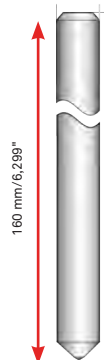
The use of a chip collector is recommended for all types of tools.

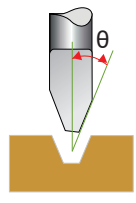|	SPECIAL CONICAL	A (INCH - MM)		CARBIDE (LEATHER)
	θ = 45°	.013"	0,32	48972

160 mm/6,299" · 2017? - 01.12

GRAVOGRAPH
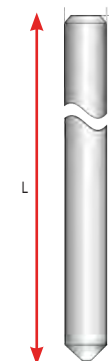
Compatible with: TXL, IS200, M40, IS400, IS900, IS6000/7000/8000

ROTATIVE   A (MM - INCH)   DIAMOND   A (INCH - MM)   NON ROTATIVE

12909 (Faceted)	0,10	.004"
		120,0°
		130,0°
34095 (Conical)	0.50	.020"
		126.5°

0,50 — .020" — 34094 (21050)

160 mm/6,299"

Rotating   **Non Rotating**

Designed for Feather Touch Use

CONICAL & FACETED DIAMOND
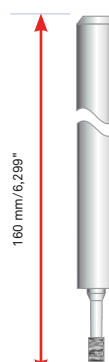
COMPATIBLE MATERIALS	ROTATING DIAMOND		NON ROTATING DIAMOND
	12909	34095	34094
Glass & Mirror	◉	■	
Aluminium/Brass	■	■	◉
Gold/Silver	■		■
Steel/Stainless steel		◉	

◉ Absolutely suitable   ■ Suitable

FACETED   A (MM - INCH)   DIAMOND

			L
77659	0,25	.010"	130mm/5.118"
34122	0,25	.010"	160mm/6.299"
34123	0.38	.015"	160mm/6.299"
34124	0,76	.030"	160mm/6.299"

110°   A

M40 = 78161
IS = 78465

Rotating   **Non Rotating**

Designed for Feather Touch Use

FACETED DIAMOND

COMPATIBLE MATERIALS	FACETED DIAMOND
Plastics	
Leathers and derived products	
Glass & Mirror	◉
Aluminium/Brass	
Gold/Silver	
Steel/Stainless steel	

◉ Absolutely suitable   ■ Suitable

DIAMOND CONICAL   SPECIAL DIAMOND   A (INCH - MM)   DIAMOND CONICAL

20932	1.60	.063"
20933		

.030"	0,75	34119 (27044)
.060"	1,50	34120 (21753)
.090"	2.30	34121

160 mm/6,299"

Rotating   **Non Rotating**

Designed for Feather Touch Use

SPECIAL

COMPATIBLE MATERIALS	DIAMOND BALL	DIAMOND CONICAL
Plastics		
Leathers and derived products		
Phenolic		
Steel/Stainless steel		
Glass & Mirrors	■	◉
Granite	◉	

◉ Absolutely suitable   ■ Suitable

WRITE/DRAW

STYLUS

Assembled stylus bit	21679
CROSS Stylus Refill	12374

160 mm/6,299"

Ideal for performing a test prior to engraving

COMPATIBLE MATERIALS	STYLUS
Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Phenolic	
Paper	◉

◉ Absolutely suitable   ■ Suitable

GRAVOGRAPH

BEVELLING

Compatible with: TXL, IS200, M40, IS400, IS900, IS6000/7000/8000

SPECIAL

COMPATIBLE MATERIALS	STEEL	CARBIDE
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	■
Leathers and derived products		
Phenolic		◉
Gold/Silver	■	■
Aluminium/Brass	■	◉
Steel/Stainless steel		

◉ Absolutely suitable ■ Suitable

STEEL	A (MM - INCH)		SPECIAL	A (INCH - MM)		CARBIDE
48830*	0,25	.010"	15°	.010"	0,25	-
48832	0,25	.010"	22,5°	.010"	0,25	21038
48831	0,25	.010"	45°	.010"	0,25	
-	3,00	.120"	90°	.120"	3,00	21041

48807 - 01.12 — 160 mm/6,299"
51372 - 01.12 — 160 mm/6,299"

DRILLING AND CUTTING

HELICAL

COMPATIBLE MATERIALS	CARBIDE
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉
Phenolic	■
Gold/Silver	■
Aluminium/Brass	◉
Steel/Stainless steel	■

◉ Absolutely suitable ■ Suitable

To choose your tool, consult the Braille tool selection assistance guide below.

The chip collector use is essential for all drilling operations.

HELICAL	A (INCH - MM)		CARBIDE
	.061"	1,550	48766
	.062"	1,565	48767
	.063"	1,580	48768

160 mm/6,299"

BRAILLE TOOL SELECTION GUIDE

| ref: 48686 - Tool width 1.500 mm |
| ref: 48766 - Tool width 1.550 mm |
| ref: 48767 - Tool width 1.565 mm |
| ref: 48768 - Tool width 1.580 mm |

	Adhesive-free materials			Materials with adhesive
	Steel beads	Brass beads	Acrylic beads	All beads
Metals	48767	48766	48767	48768
Acrylic	48767	48766	48767	48768
Gravotac™	48766	48766	48766	48768
Phenolic	48767	48766	48767	48768
ABS +2 Ply™	48686	48686	48686	48767

SEMI-FINISHED CARBIDE TOOLS

READY TO GRIND

MORE INFORMATION ABOUT CG30 GRINDER.
AVAILABLE - Page 105

MM			
3.17-1/8"		L	L1
	30046	105.0 /4.134"	13.0 / 0.511"
	73011	50.0 / 1.968"	13.0 / 0.511"
4.36-11/64"		L	L1
	28082	160.0 /6.299"	.13.0 / 0.511"
	73012	50.0 / 1.968"	13.0 / 0.511"
6.35-1/4"		L	L1
	73013	50.0	16.0 / 0630"

Solid carbide

GRAVOGRAPH

Compatible with: IS400, IS900, IS6000/7000/8000 & biseauteuse B6

ENGRAVING

CONICAL | A (INCH - MM) | CARBIDE

For machines:
- VB PANTOGRAPH
- IS400 - IS900 IQ
- IS6000 - IS7000 - IS8000 IQ&XP

equipped with a collet spindle

θ = 23°

A
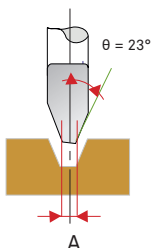
A (INCH)	MM	CARBIDE
.013"	0,32	48836
.020"	0,50	48837
.030"	0,75	48838
.050"	1,25	48839
.080"	2,00	48840
.125"	3,17	48841
.236"	6,00	48842

48821 - 01-12

177 mm/6,968"

CONICAL FOR BEVELLING

COMPATIBLE MATERIALS	CARBIDE
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉
Leathers and derived products	
Phenolic	◉
Gold/Silver	▪
Aluminium/Brass	▪
Steel/Stainless steel	

◉ Absolutely suitable   ▪ Suitable

CONICAL | A (INCH - MM) | CARBIDE

For machines:
- VB PANTOGRAPH
- IS400 - IS900 IQ
- IS6000 - IS7000 - IS8000 IQ&XP

equipped with a collet spindle

θ = 23°

A
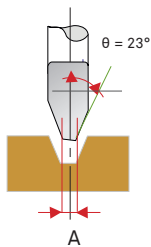
A (INCH)	MM	CARBIDE
.013"	0,32	48843
.125"	3,17	48844

48821 - 01-12

75 mm/2,952"

STANDARD CONICAL

COMPATIBLE MATERIALS	CARBIDE
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉
Phenolic	◉
Gold/Silver	▪
Aluminium/Brass	▪
Steel/Stainless steel	

◉ Absolutely suitable   ▪ Suitable

BEVELLING

SPECIAL | A (INCH - MM) | CARBIDE

Bevel router bits

To be installed only on the **B6 bevelling machine**

They can be used on IS machines equipped with a collet spindle

45°

90°
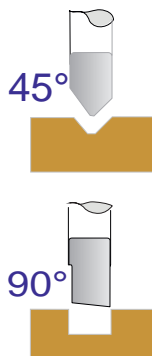
A (INCH)	MM	CARBIDE
.004"	0,10	48846
.236"	6,00	48847
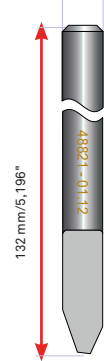
48821 - 01-12

132 mm/5,196"

SPECIAL

COMPATIBLE MATERIALS	CARBIDE
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉
Phenolic	▪
Gold/Silver	▪
Aluminium/Brass	◉
Steel/Stainless steel	

◉ Absolutely suitable   ▪ Suitable

SCRIBING

SCRATCHING DIAMOND | A (INCH - MM) | DIAMOND

Scribing diamond
Non Rotative
Engraving on ferrous metal and non ferrous metal.
Pantograph IR & IRV
CN machines using a 6.35mm collet spindle.

130°

A (INCH)	MM	DIAMOND
.004"	0,10	34261 (11890)

178,0 mm/7.000"

SCRIBING DIAMOND

COMPATIBLE MATERIALS	DIAMOND
Glass & Mirrors	◉
Gold/Silver	▪
Aluminium/Brass	◉
Steel/Stainless steel	▪

◉ Absolutely suitable   ▪ Suitable

Rotating   Non **Rotating**

GRAVOGRAPH

ENGRAVING

Compatible with: TXL, M40, IS200, IS400, IS900, IS6000/7000/8000

STANDARD CONICAL

COMPATIBLE MATERIALS	θ = 22.5°	θ = 30°
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	
Leathers and derived products		
Phenolic	■	
Gold/Silver		◉
Aluminium/Brass	◉	
Steel/Stainless steel		

◉ Absolutely suitable   ■ Suitable
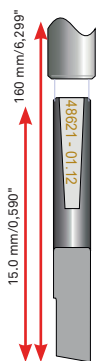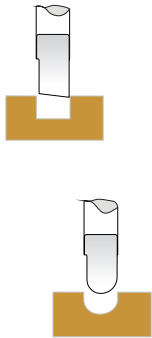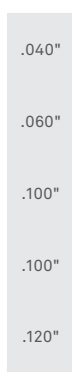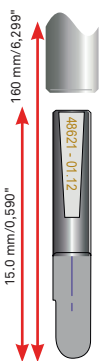
Θ =22.5°	CARBIDE	A (MM-INCH)		CONICAL	A (INCH - MM)	CARBIDE	Θ =30°
	48608	0,25	.010"		.010"	0,25	50135
	48609	0,32	.013"		.013"	0,32	50136
	48610	0,50	.020"		.020"	0,50	50137
	48611	0,75	.030"				
	48612	1,00	.040"				
	48613	1,25	.050"				
	48614	1,50	.060"				
	48615	1,75	.069"				
	48616	2,00	.080"				
	48617	2,50	.100"		.030"	0,75	50138
	48618	3,00	.120"				

160 mm/6,299" — 15.0 mm/0,590" (48821 - 01.12)
160 mm/6,299" — 15.0 mm/0,590" (50138 - 01.12)

CYLINDRICAL

COMPATIBLE MATERIALS	FLAT END	ROUND END
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	◉
Leathers and derived products		
Phenolic	■	■
Gold/Silver		
Aluminium/Brass	■	■
Steel/Stainless steel		
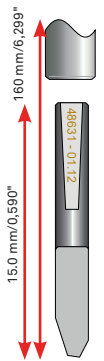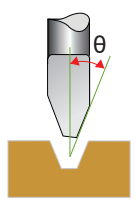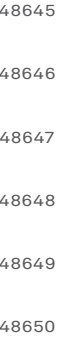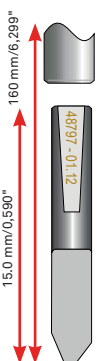
◉ Absolutely suitable   ■ Suitable

FLAT END	CARBIDE	A (MM-INCH)		CYLINDRICAL	A (INCH - MM)	CARBIDE	ROUND END
	48619	1,00	.040"		.040"	1,00	48624
	48620	1,50	.060"		.060"	1,50	48625
	48621	2,00	.100"		.100"	2,00	48626
	48622	2,50	.100"		.100"	2,50	48627
	48623	3,00	.120"		.120"	3,00	48628

160 mm/6,299" — 15.0 mm/0,590" (48821 - 01.12)
160 mm/6,299" — 15.0 mm/0,590" (48821 - 01.12)

CONICAL

COMPATIBLE MATERIALS	θ = 35°	DOUBLE CONE
Gravoply™, Metallex™ & Gravoglas™, Acrylic		
Leathers and derived products		
Phenolic		
Gold/Silver		
Aluminium/Brass		■
Steel/Stainless steel	◉	◉

◉ Absolutely suitable   ■ Suitable

Θ =35°	CARBIDE	A (MM-INCH)		CONICAL	A (INCH - MM)	CARBIDE	DBLE CONE
	48629	0,25	.010"		.010"	0,25	48645
	48630	0,32	.013"		.013"	0,32	48646
	48631	0,50	.020"		.020"	0,50	48647
	48632	0,75	.030"		.030"	0,75	48648
	48633	1,00	.040"		.040"	1,00	48649
	48634	1,25	.050"		.050"	1,25	48650
	48635	1,50	.060"				

160 mm/6,299" — 15.0 mm/0,590" (48631 - 01.12)
160 mm/6,299" — 15.0 mm/0,590" (48797 - 01.12)
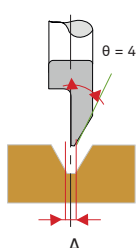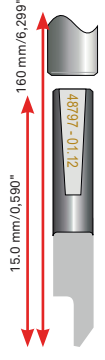
SPECIAL CONICAL

COMPATIBLE MATERIALS	1/4 ROUND
Gold/Silver	
Aluminium/Brass	◉
Steel/Stainless steel	■

◉ Absolutely suitable   ■ Suitable

Advice for use

Anodised aluminium: depth 1 division at adjustment tip
Steel and stainless steel:
Rotation speed = 11,000 rpm (adjustment only possible on IS)

A higher speed would cause premature wearing in the truncation.
V xy= 5mm/s/ Vz = 3mms

The use of a cutting lubrication oil is essential: TARFIL™ blue ref: 19526

1/4 ROUND	A (INCH - MM)		CARBIDE	1/4 ROUND
	.010"	0,25		48636
	.013"	0,32		48637
	.020"	0,50		48638
	.030"	0,75		48639
	.040"	1,00		48640
	.050"	1,25		48641
	.060"	1,50		48642
	.069"	1,75		48643
	.080"	2,00		48644

θ = 40°

160 mm/6,299" — 15.0 mm/0,590" (48797 - 01.12)

GRAVOGRAPH

Compatible with: TXL, M40, IS200, IS400, IS900, IS6000/7000/8000

BEVELLING

Θ =15°	CARBIDE	A (MM - INCH)	SPECIAL	A (INCH - MM)	CARBIDE	Θ =45°
	48713	0,32	θ=15° θ=45°	.013"	48925	
			.013" 0,32			

SPECIAL

COMPATIBLE MATERIALS	θ = 15°	θ = 45°
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	
Leathers and derived products	▪	▪
Phenolic	▪	◉
Gold/Silver	▪	
Aluminium/Brass	◉	◉
Steel/Stainless steel		

◉ Absolutely suitable   ▪ Suitable

SCRIBING

Θ =120.0°	CARBIDE	A (MM - INCH)	DIAMOND	A (INCH - MM)	CARBIDE	Θ =126.5°
	23060	0,10	.004" 120.0°	.004"	23061	
			126.5°	0,10		

Rotating   Non Rotating   Designed for feather Touch Use

DIAMOND

COMPATIBLE MATERIALS	θ = 120.0°	θ = 126.5°
Gravoply™, Metallex™ & Gravoglas™, Acrylic		
Gold/Silver	▪	◉
Aluminium/Brass	◉	▪
Steel/Stainless steel	▪	▪

◉ Absolutely suitable   ▪ Suitable

DRILLING AND CUTTING

DRILLING	CARBIDE	A (MM-INCH)	CYLINDRICAL	A (INCH - MM)	CARBIDE	MULTI-LIP
	48661	0,50	.020"			
	48682	0,80	.030"			
	48683	1,00	.040"			
	48684	1,20	.047"	.040"	1,00	48651
	48685	1,40	.055"			
	48686	1,50	.060"			
	48687	2,00	.080"	.080"	2,00	48652
	48688	2,50	.100"			

CYLINDRICAL

COMPATIBLE MATERIALS	DRILLING	MULTI-LIPS
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	
Leathers and derived products		
Phenolic / Epoxy	▪	◉
Gold/Silver	▪	
Aluminium/Brass	▪	
Steel/Stainless steel		

◉ Absolutely suitable   ▪ Suitable

CUTTING

DOUBLE LIP	CARBIDE	A (MM-INCH)	CYLINDRICAL	A (INCH - MM)	CARBIDE	SINGLE LIP
	48657	0,80	.030"	.030"	0,8	48653
	48658	1,00	.040"	.040"	1,0	48654
	48659	2,00	.080"	.080"	2,0	48655
	48660	3,00	.100"	.100"	3,0	48656

CYLINDRICAL

COMPATIBLE MATERIALS	DOUBLE LIPS	SINGLE LIP
Gravoply™, Metallex™ & Gravoglas™, Acrylic	▪	▪
Gold/Silver	▪	▪
Aluminium/Brass	◉	◉

◉ Absolutely suitable   ▪ Suitable

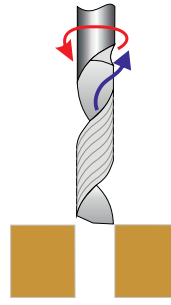GRAVOGRAPH

MACHINING

Section 1 — SINGLE LIP (CARBIDE)

COMPATIBLE MATERIALS — SINGLE LIP ◉

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Leathers and derived products
- Phenolic
- Gold/Silver
- Aluminium/Brass ▪
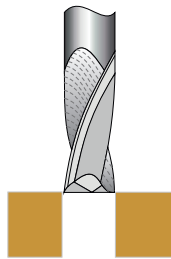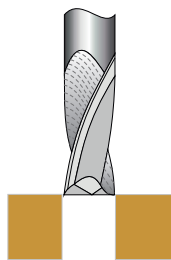- Steel/Stainless steel

◉ Absolutely suitable   ▪ Suitable
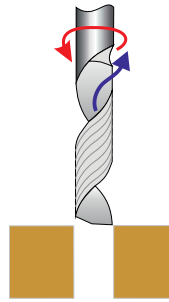
L	L_1	A			CARBIDE
39,0 mm 1.535"	4,0 mm .160"	1,0 mm .040"		48736	3 mm
39,0 mm 1.535"	8,0 mm .315"	2,0 mm .080"		48737	
39,0 mm 1.535"	10,0 mm .40"	3,00 mm .120"		48738	
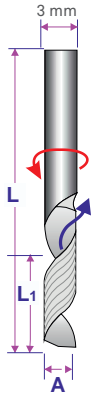
Section 2 — SINGLE LIP (CARBIDE)

COMPATIBLE MATERIALS — SINGLE LIP ▪

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Leathers and derived products
- Phenolic
- Gold/Silver
- Aluminium/Brass ◉
- Steel/Stainless steel

◉ Absolutely suitable   ▪ Suitable
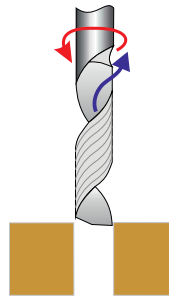
L	L_1	A			CARBIDE
38,0 mm 1.496"	3,0 mm .120"	1,0 mm .040"		48739	3 mm
38,0 mm 1.496"	5,0 mm .197"	2,0 mm .080"		48740	
50,0 mm 1.968"	8,0 mm .315"	3,00 mm .120"		48741	
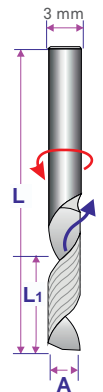
Section 3 — DOUBLE LIP

COMPATIBLE MATERIALS — DOUBLE LIPS   80341

- Gravoply™, Metallex™ & Gravoglas™, Acrylic ▪
- Leathers and derived products
- Phenolic
- Gold/Silver
- Aluminium/Brass ◉   ◉
- Steel/Stainless steel

◉ Absolutely suitable   ▪ Suitable
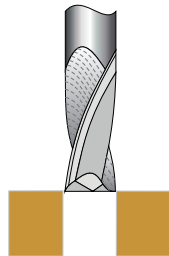
L	L_1	A			DOUBLE LIP
38,0 mm 1.496"	2,0 mm .080"	1,0 mm .040"		48752	3 mm
38,0 mm 1.496"	3,0 mm .120"	1,5 mm .060"		48753	
38,0 mm 1.496"	1,95 mm .077"	1,95 mm .077"		80341*	
38,0 mm 1.496"	4,0 mm .160"	2,0 mm .080"		48755	
38,0 mm 1.496"	5,0 mm .197"	2,5 mm .100"		48756	
38,0 mm 1.496"	6,0 mm .236"	3,0 mm .120"		48769	
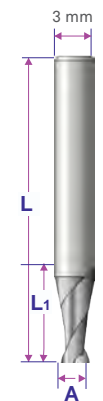
* TiAlN coated – avoid lubricant for hard brass & copper

Section 4 — TRIPLE LIPS (CARBIDE)

COMPATIBLE MATERIALS — TRIPLE LIPS

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Gold/Silver
- Aluminium/Brass ◉
- Steel/Stainless steel
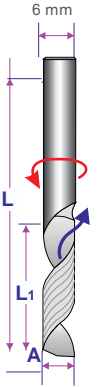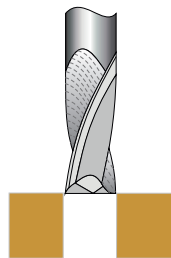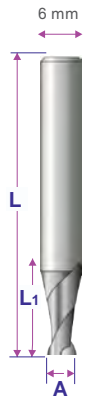
◉ Absolutely suitable   ▪ Suitable

L	L_1	A			CARBIDE
38,0 mm 1.496"	4,0 mm .160"	2,00 mm .080"		70611	3 mm

GRAVOGRAPH
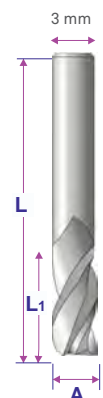
MACHINING

CARBIDE		A	L₁	L
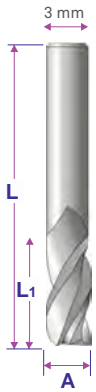
23080	▬	2,00 mm .080"	6,00 mm .236"	32,0 mm 1.260"

COMPATIBLE MATERIALS — **TRIPLE LIPS**

Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Phenolic	
Gold/Silver	
Aluminium/Brass	
Steel/Stainless steel	◉

◉ Absolutely suitable   ■ Suitable

ENGRAVING
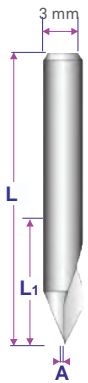
CARBIDE		A	L₁	L

23077	—	0,15 mm .005"	-	32 mm 1.260"

COMPATIBLE MATERIALS — **CONICAL HELICAL**

Gravoply™, Metallex™ & Gravoglas™, Acrylic	■
Leathers and derived products	
Phenolic	■
Gold/Silver	■
Aluminium/Brass	◉
Steel/Stainless steel	

◉ Absolutely suitable   ■ Suitable

CARBIDE		A	θ	L
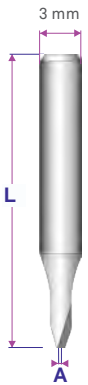
70613	—	0,05 mm .002"	50°	38 mm 1.496"
70612	—	0,15 mm .005"	50°	38 mm 1.496"
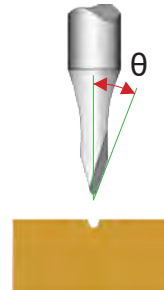
COMPATIBLE MATERIALS — **3/4 CONICAL**

Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Phenolic	
Gold/Silver	■
Aluminium/Brass	■
Steel/Stainless steel	◉

◉ Absolutely suitable   ■ Suitable

Advice for use

Cutting and engraving plastics

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	20 à 35	10 à 20	Chip collector (A)
Cutting	5 à 15	2 à 8	Chip collector (A)

Cutting and engraving brass

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	10 à 15	5 à 10	Chip collector (A)
Cutting	4 à 10	2 à 8	Chip collector (A)

Cutting and engraving aluminium

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	7 à 12	5 à 8	Lubrication : Surfex® Ref:30368 (B)
Cutting	2 à 5	1 à 5	Lubrication : Surfex® Ref:30368 (B)

Cutting and engraving steel and stainless steel

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	5 à 10	1 à 5	Lubrication : Tarfil™ Ref:19526 (C)
Cutting	1 à 3	1 à 2	Lubrication : Tarfil™ Ref:19526 (C)

A   B   C

GRAVOGRAPH

MACHINING

SINGLE LIP

		L	L₁	A		SINGLE LIP
COMPATIBLE MATERIALS	SINGLE LIP					
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	38,0 mm 1.496"	8,0 mm .315"	2,0 mm .080"	▬	48742
Leathers and derived products						
Phenolic		38,0 mm 1.496"	10,0 mm .40"	3,00 mm .120"	▬	48743
Gold/Silver						
Aluminium/Brass	▪					
Steel/Stainless steel		50,0 mm 1.968"	20,0 mm .80"	4,00 mm .160"	▬	48744
◉ Absolutely suitable	▪ Suitable					

SINGLE LIP
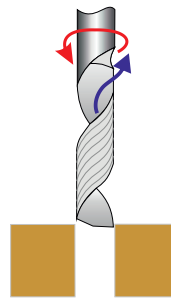
		L	L₁	A		SINGLE LIP
COMPATIBLE MATERIALS	SINGLE LIP					
Gravoply™, Metallex™ & Gravoglas™, Acrylic	▪	38,0 mm 1.496"	3,0 mm .120"	2,0 mm .080"	▬	48745
Leathers and derived products						
Phenolic		38,0 mm 1.496"	6,0 mm .236"	3,0 mm .120"	▬	48746
Gold/Silver						
Aluminium/Brass	◉	50,0 mm 1.968"	9,0 mm .354"	4,00 mm .160"	▬	48747
Steel/Stainless steel						
		38,0 mm 1.496"	12,0 mm .472"	4,00 mm .160"	▬	23086
◉ Absolutely suitable	▪ Suitable					

DOUBLE LIP

		L	L₁	A		DOUBLE LIP
COMPATIBLE MATERIALS	DOUBLE LIP					
Gravoply™, Metallex™ & Gravoglas™, Acrylic	▪	38,0 mm 1.496"	4,0 mm .160"	2,00 mm .080"	▬	48770
Leathers and derived products						
Phenolic		38,0 mm 1.496"	14,0 mm .551"	3,00 mm .120"	▬	48771
Gold/Silver						
Aluminium/Brass	◉	50,0 mm 1.968"	16,0 mm .630"	4,00 mm .160"	▬	23073
Steel/Stainless steel						
◉ Absolutely suitable	▪ Suitable					

DOUBLE LIP

		L	L₁	A		DOUBLE LIP
COMPATIBLE MATERIALS	DOUBLE LIP					
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉					
Leathers and derived products						
Phenolic		50,0 mm 1.968"	12,0 mm .472"	4,00 mm .160"	▬	23072
Gold/Silver						
◉ Absolutely suitable	▪ Suitable					

GRAVOGRAPH

MACHINING

CARBIDE

4 mm

Ref	A	L₁	L
23079	2,00 mm .080"	4,00 mm .160"	25,0 mm .984"

COMPATIBLE MATERIALS

Material	TRIPLE LIP
Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Gold/Silver	
Aluminium/Brass	◉
Steel/Stainless steel	

◉ Absolutely suitable   ■ Suitable

ENGRAVING

CARBIDE

4 mm
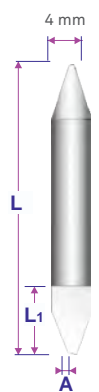
Ref	A	L₁	L
48757	0,25 mm .010"		
48758	0,32 mm .013"		
48759	0,50 mm .020"	6,0 mm .236"	50,0 mm 1,968"
48760	0,75 mm .030"		
48761	1,25 mm .050"		

COMPATIBLE MATERIALS

Material	CONICAL WITH DOUBLE RECESS
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉
Leathers and derived products	
Phenolic	■
Gold/Silver	■
Aluminium/Brass	◉
Steel/Stainless steel	

◉ Absolutely suitable   ■ Suitable

Advice for use

Cutting and engraving plastics

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	20 à 35	10 à 20	Chip collector (A)
Cutting	5 à 15	2 à 8	Chip collector (A)

Cutting and engraving brass

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	10 à 15	5 à 10	Chip collector (A)
Cutting	4 à 10	2 à 8	Chip collector (A)

Cutting and engraving aluminium

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	7 à 12	5 à 8	Lubrication : Surfex® Ref:30368 (B)
Cutting	2 à 5	1 à 5	Lubrication : Surfex® Ref:30368 (B)

Cutting and engraving steel and stainless steel

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	5 à 10	1 à 5	Lubrication : Tarfil™ Ref:19526 (C)
Cutting	1 à 3	1 à 2	Lubrication : Tarfil™ Ref:19526 (C)

GRAVOGRAPH

MACHINING

SINGLE LIP

		L	L₁	A		
COMPATIBLE MATERIALS	SINGLE LIP					
Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉	50,0 mm 1.968"	7,0 mm .275"	2,00 mm .080"		48748
Leathers and derived products		50,0 mm 1.968"	10,0 mm .40"	3,00 mm .120"		48749
Phenolic						
Gold/Silver		50,0 mm 1.968"	12,0 mm .472"	4,00 mm .160"		48750
Aluminium/Brass	▪					
Steel/Stainless steel		50,0 mm 1.968"	15,0 mm .590"	6,00 mm .236"		48751
◉ Absolutely suitable ▪ Suitable						

DOUBLE LIP

		L	L₁	A		
COMPATIBLE MATERIALS	DOUBLE LIPS					
Gravoply™, Metallex™ & Gravoglas™, Acrylic	▪	50,0 mm 1.968"	6,0 mm .236"	2,00 mm .080"		48772
Leathers and derived products		50,0 mm 1.968"	6,0 mm .236"	3,00 mm .120"		70610
Phenolic						
Gold/Silver		50,0 mm 1.968"	8,0 mm .315"	4,00 mm .160"		70614
Aluminium/Brass	◉					
Steel/Stainless steel		50,0 mm 1.968"	16,0 mm .630"	6,00 mm .236"		70615
◉ Absolutely suitable ▪ Suitable						

TRIPLE LIP

		L	L₁	A		
COMPATIBLE MATERIALS	TRIPLE LIPS					
Gravoply™, Metallex™ & Gravoglas™, Acrylic		50,0 mm 1.968"	4,0 mm .160"	2,00 mm .080"		71765
Leathers and derived products						
Phenolic		50,0 mm 1.968"	6,0 mm .236"	3,00 mm .120"		71766
Gold/Silver						
Aluminium/Brass	◉	50,0 mm 1.968"	8,0 mm .315"	4,00 mm .160"		71767
Steel/Stainless steel						
◉ Absolutely suitable ▪ Suitable						

4 LIPS

		L	L₁	A		
COMPATIBLE MATERIALS	4 LIPS					
Gravoply™, Metallex™ & Gravoglas™, Acrylic		50,0 mm 1.968"	4,0 mm .160"	2,00 mm .080"		71768
Gold/Silver						
Aluminium/Brass		50,0 mm 1.968"	8,0 mm .315"	3,00 mm .120"		71769
Steel/Stainless steel	◉					
		50,0 mm 1.968"	11,0 mm .433"	4,00 mm .160"		71770
◉ Absolutely suitable ▪ Suitable						
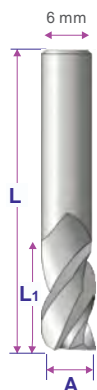
Tools covered with CUTINOX, facilitating the machining of hard metals

GRAVOGRAPH

ENGRAVING

CARBIDE   A   L₁   L

6 mm
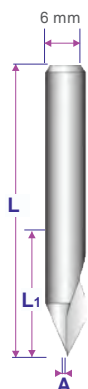
	A	L₁	L
23091	0,15 mm .005"	-	57 mm 2.244"

CONICAL HELICAL

COMPATIBLE MATERIALS

Gravoply™, Metallex™ & Gravoglas™, Acrylic	▪
Leathers and derived products	
Phenolic	▪
Gold/Silver	▪
Aluminium/Brass	◉
Steel/Stainless steel	

CARBIDE   A   L₁   L

6 mm
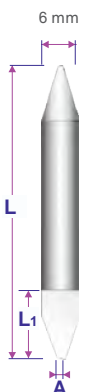
	A	L₁	L
48762	0,32 mm .013"		
48763	0,50 mm .020"	8,0 mm .315"	57,0 mm 2.244"
48765	1,25 mm .050"		

CONICAL WITH DOUBLE RECESS

COMPATIBLE MATERIALS

Gravoply™, Metallex™ & Gravoglas™, Acrylic	◉
Leathers and derived products	
Phenolic	▪
Gold/Silver	▪
Aluminium/Brass	◉
Steel/Stainless steel	

Advice for use

Cutting and engraving plastics

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	20 à 35	10 à 20	Chip collector (A)
Cutting	5 à 15	2 à 8	Chip collector (A)

Cutting and engraving brass

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	10 à 15	5 à 10	Chip collector (A)
Cutting	4 à 10	2 à 8	Chip collector (A)

Cutting and engraving aluminium

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	7 à 12	5 à 8	Lubrication : Surfex® Ref:30368 (B)
Cutting	2 à 5	1 à 5	Lubrication : Surfex® Ref:30368 (B)

Cutting and engraving steel and stainless steel

Parameters	V xy (mm/s)	V z (mm/s)	Conditions
Engraving	5 à 10	1 à 5	Lubrication : Tarfil™ Ref:19526 (C)
Cutting	1 à 3	1 à 2	Lubrication : Tarfil™ Ref:19526 (C)

GRAVOGRAPH

ONECUT 3.17 mm

SCRIBING DIAMOND

COMPATIBLE MATERIALS	ROTATING	NON ROTATING
Gravoply™, Metallex™ & Gravoglas™, Acrylic		
Leathers and derived products		
Glass & Mirrors	◉	■
Gold/Silver	■	◉
Aluminium/Brass	■	■
Steel/Stainless steel	■	

◉ Absolutely suitable   ■ Suitable

CONICAL	A (MM - INCH)	DIAMOND	A (INCH - MM)	CONICAL
106 mm /4,173"				106 mm /4,173"
20149	0,10 — .004"	90° / 126,5°	.004" — 0,10	33954 (20147)

Rotating ↻   Non **Rotating** ⊘

Designed for Feather Touch Use

FACETED DIAMOND

COMPATIBLE MATERIALS	FACETED DIAMOND
Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Glass & Mirrors	◉
Gold/Silver	
Aluminium/Brass	■
Steel/Stainless steel	

◉ Absolutely suitable   ■ Suitable

FACETED	A (MM - INCH)		DIAMOND
52163	0,127	.005"	
52183	0,254	.010"	**110**°
51089	0,508	.020"	Δ
52184	0,762	.030"	M20 = 78163

106 mm /4,173"

Rotating ↻   Non **Rotating** ⊘

Designed for Feather Touch Use
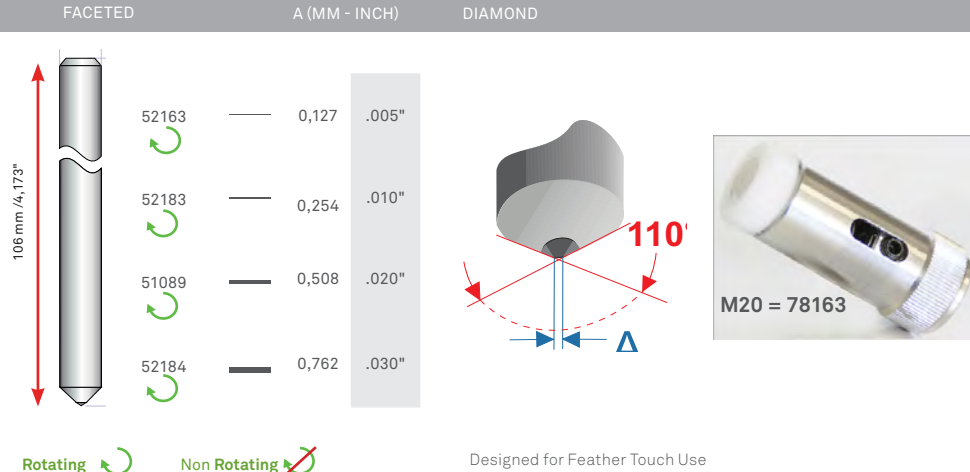
DIAMOND INSERT

COMPATIBLE MATERIALS	INSERTS-DIAMOND
Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Glass & Mirrors	■
Gold/Silver	◉
Aluminium/Brass	■
Steel/Stainless steel	■

◉ Absolutely suitable   ■ Suitable

Scribing insert:
Diamond spindle: Pantograph and Diamond spindle VX & VXM
Non Rotating

Scribing insert:
Diamond spindle:
M20 Diamant
M20 PIX
Non Rotating

Scribing insert :
Diamond tip (22884)
Mod B - Im4 R & RM - M20 & M10
Jewel - RingCube-TagCube & MedalCube
Non Rotating

CONICAL	A (INCH - MM)	CONICAL
	.004" — 0,10	33827 (12224) L=21.5mm/1.000" ⊘
126,5°	.004" — 0.10	23061 L=15 mm/0,59" ⊘
	.004" — 0,10	28187 (33825-33823-33826) L=7.0 mm/0,275" ⊘

Rotating ↻   Non **Rotating** ⊘
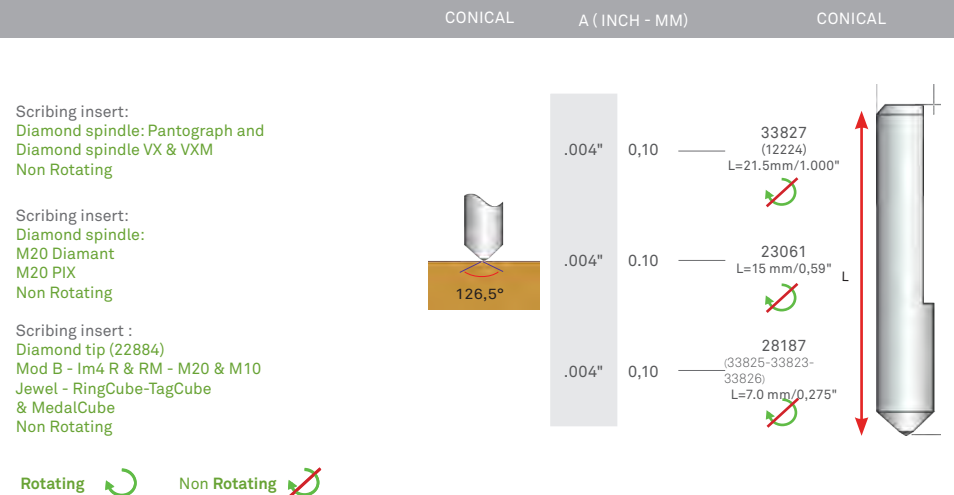
ONECUT 4.36 mm

CONICAL & FACETED DIAMOND

COMPATIBLE MATERIALS	ROTATING DIAMOND 12909	34095	NON ROTATING DIAMOND 34094
Glass & Mirror	◉	■	
Aluminium/Brass	■	■	◉
Gold/Silver	■		■
Steel/Stainless steel		◉	

◉ Absolutely suitable   ■ Suitable

ROTATIVE	A (MM-INCH)	DIAMOND	A (INCH - MM)	NON ROTATIVE
160 mm/6,299"	12909 (Faceted) 0,10 — .004"	120,0° / 130,0° / 126.5°	.020" — 0,50	34094 (21050)
	34095 (Conical) 0.50 — .020"			160 mm/6,299"

Rotating ↻   Non **Rotating** ⊘

Designed for Feather Touch Use

GRAVOGRAPH
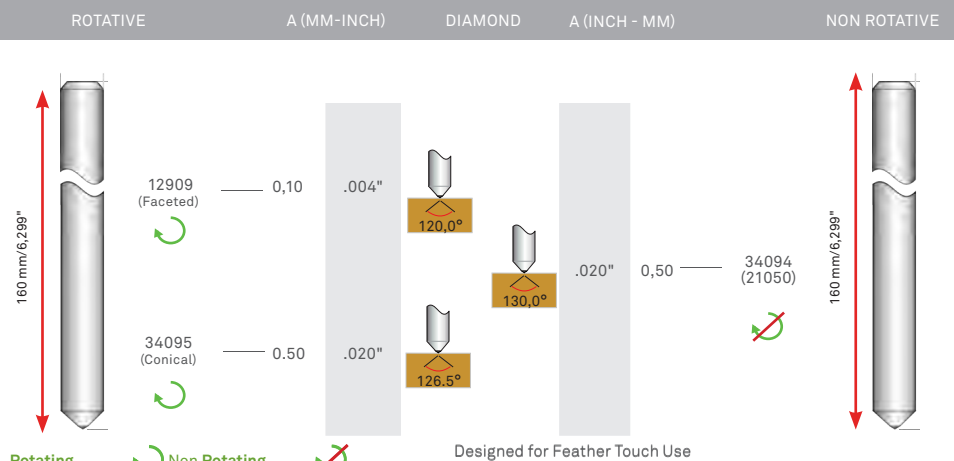
FACETED DIAMOND

	A (MM - INCH)		CONICAL	
77659	0,25	.010"	130mm/5.118"	Rotating
34122	0,25	.010"	160mm/6.299"	
34123	0.38	.015"	160mm/6.299"	
34124	0,76	.030"	160mm/6.299"	

110° A

M40 = 78161

IS = 78465

Rotating — Non **Rotating**

Designed for Feather Touch Use

BALL DIAMOND / SPECIAL DIAMOND / CONICAL DIAMOND

BALL DIAMOND	A (MM - INCH)		SPECIAL DIAMOND	A (MM - INCH)		CONICAL DIAMOND
20932	1.60	.063"		.030"	0,75	34119 (27044)
				.060"	1,50	34120
20933				0.09"	2.30	34121

160 mm/6,299"

Rotating — Non **Rotating**

Designed for Feather Touch Use

SCRIBING DIAMOND

Scribing diamond
Non Rotative
Engraving on ferrous metal and non ferrous metal.
Pantograph IR & IRV
CN machines using a 6.35mm collet spindle.

	A (INCH - MM)		DIAMOND
130°	.004"	0,10	34261 (11890)

178.0 mm/7.000"

Rotating — Non **Rotating**

TWINCUT DIAMOND

Θ =120° DIAMOND	A (MM - INCH)		CONICAL	A (INCH - MM)		DIAMOND Θ =126.5°
23060	0,10	.004"	120.0°	.004"	0,10	23061
			126.5°			

160 mm/6,299"
15.0 mm/0,590"

Rotating — Non **Rotating**

FACETED DIAMOND

COMPATIBLE MATERIALS	FACETED DIAMOND
Plastics	
Leathers and derived products	
Glass & Mirror	◉
Aluminium/Brass	▪
Gold/Silver	
Steel/Stainless steel	▪

◉ Absolutely suitable   ▪ Suitable

SPECIAL

COMPATIBLE MATERIALS	DIAMOND BALL	DIAMOND CONICAL
Plastics		
Leathers and derived products		
Phenolic		
Steel/Stainless steel		
Glass & Mirrors	▪	◉
Granite	◉	

◉ Absolutely suitable   ▪ Suitable

SCRIBING DIAMOND

COMPATIBLE MATERIALS	DIAMOND
Glass & Mirrors	
Gold/Silver	▪
Aluminium/Brass	
Steel/Stainless steel	▪

◉ Absolutely suitable   ▪ Suitable

DIAMOND

COMPATIBLE MATERIALS	θ = 120.0°	θ = 126.5°
Gravoply™, Metallex™ & Gravoglas™, Acrylic		
Gold/Silver	▪	◉
Aluminium/Brass	◉	▪
Steel/Stainless steel	▪	▪

◉ Absolutely suitable   ▪ Suitable

GRAVOGRAPH

BASIC ADJUSTMENT FOR ENGRAVING CUTTERS

Before starting adjustment of your tools

1. Set the depth micrometer to position 0
2. Fit a cutter knob into the spindle. The screw thread is reversed.
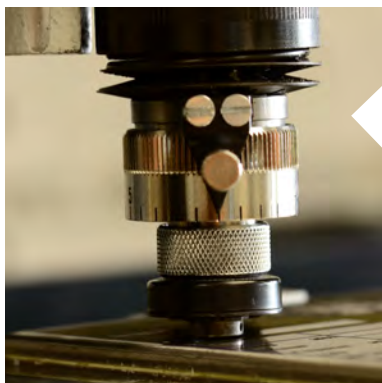
Step-by-step engraving cutter adjustment for engraving plastics

1. Move the spindle into position above the plate to be engraved, using the X and Y arrows on the remote control

2 . Press the remote control button [Z]   (Z = 0.00 is displayed on the LCD screen)

Then lower the spindle by pressing and holding the button [▽] until the adjustment tip touches the material to be engraved

3. Insert the engraving cutter into the button cutter knob. Lower it gently until the truncation touches the material to be engraved. Set the adjustment by tightening the cutter knob screw

4. Press the remote control button [✓]   to save the adjustment; the spindle then rises into position

5. Rotate the micrometer upwards to display the engraving depth (1 division = 0.025 mm - depth example: Gravoply 1 = 12 division)
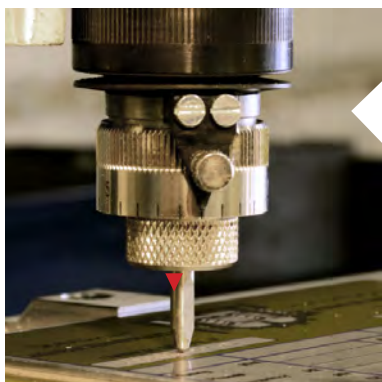
Step-by-step diamond adjustment for engraving metals

Note: the regulator nose is not used for diamond engraving.

1. Remove the tool fitted to the spindle

2. Press the remote control button [Z] and lower the bottom of the spindle [▽] to within 8 mm to 12 mm of the metal plate to be engraved

3. Insert the diamond into the button cutter knob (previously fitted to the spindle) and lower it gently until it touches the metal material. Set the adjustment by tightening the cutter knob screw

4. Press the remote control button to save the adjustment [✓]

5. The depth should be entered on the Gravostyle engraving screen.

How to choose the truncation width of an engraving cutter?

❶

The cutter tip width is directly related to the height of the engraved characters.
To use this guide most effectively, define the cutter tip width according to:

1 - the height of the engraved characters

2 - the type of characters used (single or multi-line)

❷

Tool width

Height of characters to be engraved	0.4 mm 1/64"	0.8 mm 1/32"	1.5 mm 1/16"	3.0 mm 1/8"	6 mm 1/4"	8.0 mm 5/16"	12.0 mm 1/2"	19.0 mm 3/4"	25.0 mm 1"	32.0 mm 1 1/4"	50 mm 2"
Single-line characters	0.127 mm .005"	0.25 mm .010"	0.38 mm .015"	0.50 mm .020"	0.76 mm .030"	1.0 mm .040"	1.52 mm .060"	2.28 mm .060"	3.17 mm .125"	4.34 mm .171"	6.35 mm .250"
Multi-line characters	0.127 mm .005"	0.127 mm .005"	0.25 mm .010"	0.25 mm .010"	0.38 mm .015"	0.38 mm .015"	0.76 mm .030"	1.02 mm .040"	1.52 mm .060"	1.52 mm .060"	2.30 mm .090"

Example : Height of characters to be engraved with multi-line characters : 12 mm => tool width = 0.75 mm

ACCESSORIES: TOOLS AND GRINDING EQUIPMENT

	Onecut	Twincut	IS machine	M40
A. Cutter knob key	▪	▪	10016	
B. Steel block		▪	13798	
C. Starter kit		▪	69722	69723
D. Cutter knob	▪	▪	12335	Button integrated into the spindle
E. Tool holder		▪	22987	69729
F. Brush	▪	▪	11791	
G. Ejector		▪	69724	69727

GRINDING EQUIPMENT
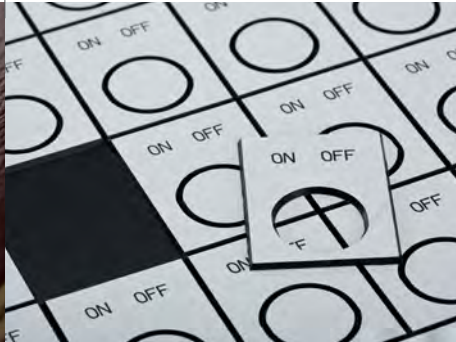
20125	Diamond grinding wheel D46 for Carbide cutters
20126	Corundum grinding wheel for Steel cutters
22806	Diamond grinding wheel D16 for finishing Carbide cutters
20890	CG30 collet - Ø = 3.17 mm (1/8")
20891	CG30 collet - Ø = 4.36 mm (11/64")
20892	CG30 collet - Ø = 6.35 mm (1/4")

20890
Ø = 3.17 mm

20891
Ø = 4.36 mm

20892
Ø = 6.35 mm

20125

22806

20126
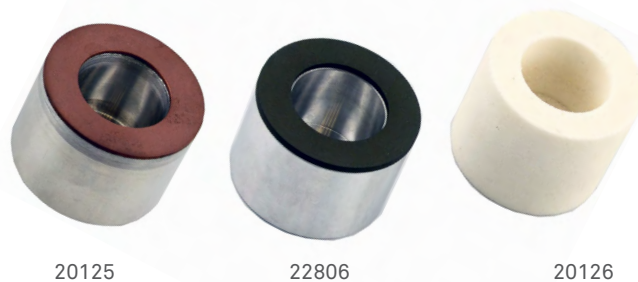
GRAVOSTYLE™

The unique software for **laser** and **rotary** engraving machines

Levels

Explorer	Discovery	DiscoveryMax
Rotary	Laser + Rotary	Laser + Rotary
Essential lettering capabilities	**Go hybrid.** **Drive laser & rotary technology**	**Productivity package**

Features

Explorer	Discovery	DiscoveryMax
• Import of vector files (DXF, EPS, HPGL etc.) and images (BMP, JPG, PNG and TIF etc.) • Plate Point & Shoot: makes it possible to define the engraving area directly on the machine • Standard text functions • Automatic centring function and centring texts on their plate • Pre-routed engraving fonts • Extensive choice of symbols • Intuitive management of toolpaths by colour with advice on the choice of tools • On-screen preview	• Matrix & variable lists • Layer management • PDF import & files export (PDF, DXF, EPS, HPGL…) • Alignment & transformation tools • Geometric shapes • Laser driving capabilities with presets • Calibration wizard: one-step process to establish optimal laser settings	• Scanning & vectorisation • Point mode & bitmap editor • 2D recess by colour • Retail font pack (incl. over 100 fonts) • Scripting (macro function capabilities)

Options

Explorer	Discovery	DiscoveryMax
Personalisation pack: • Handwriting stroked engraving fonts • Photo processing capabilities • Additional stroked engraving fonts	• Braille production • Font editor	• Text on a curve

Applications

Explorer	Discovery	DiscoveryMax
• Badges, nameplates & doorplates • Photo touch-ups • Jewellery & gifts • Pens • Pet tags & key rings • Legend plates • Valve & push button tags	• Plate serialisation • Variable list of names • Small signage • Funeral plates • Rubber stamps	• Logo scanning & editing • Trophy plates • Plates with text & logos • Signage with text & logos

In all levels

Features

Explorer	Discovery	DiscoveryMax
• Point & Shoot to check engraving position • Help features & wizards (step by step guided functions) • Engraving parameters saved with job • Automatic text composition mode	• Computip feature to recommend the most efficient tools • Support for Automatic Plate Feeding applications • Support for cylindrical engraving • Customisation of working environment	• Post-it function to take notes while you engrave • Hot keys • Favourites toolbar • Object freezing

GravoStyle™, available in multiple levels of functionality provides features and special functionalities meeting specific market needs for engraving, cutting, marking, ablating and annealing processes for CNC rotary and CO_2, YVO4 and fiber laser technologies. Specialised functionalities include:
- Dials, scales, matrix and serialisation labeling for the industrial market;
- Letter cutting and Braille for the signage market;
- Photo engraving, handwritten dedication and decorative plaques thanks to the personalisation pack.
There are many more such functions for the engraver and endless possibilities for their use. Use the software today and experience the depth and breadth of its capabilities.
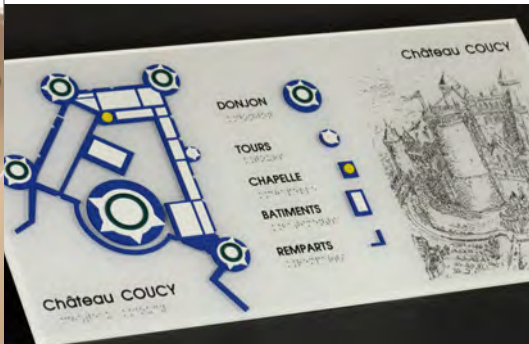
GravoStyle™ is designed to work together with your current 3rd-party design software while providing powerful engraving-specific features.

Engraving made easy. GravoStyle™'s new features include a Dynamic Helpdesk Assistant (DHA) with video directly in the software engraving window. In addition, an online Engraving Database of Parameters (EDP) provides the optimal laser process settings for the full range of Gravograph laser consumables.

RUN WITH

Windows Vista   Windows 7   Windows 8   Windows 10

Industry	Graphic	3D
Laser + Rotary	Laser + Rotary	Laser + Rotary
Power, precision & productivity	Unleash your creativity	Take your engraving to a new dimension

Industry	Graphic	3D
• Dials & scales • Scripting (macro function capabilities) • Long Plate management • Measurement tools • Batch import • External data import (CSV, TXT, Excel®, SQL, ODBC...) • Shape duplication tools	• Nesting (material optimisation) • CAM module (advanced tool management) • Powerful on-screen simulation & rendering • Advanced Braille toolpath management • Print & Cut module • LED positioning function • Photo lasering optimisation function • Moulds and dies • Shading (3D effect)	• Surface creation & manipulation tools • Styl'Art 3D modeling module • 3D texturing • Sculpture tool • 3D CAM advanced toolpaths • 3D visualisation tools • Includes all 2.5D functions
• Barcodes, Datamatrix, QR Code® and UID - unique identification with variables management	• 2.5D toolpath for jewellery/metal stamps & intaglio for signage • Laser toolpath management for deep marking	
• Rating plates • Control panels • Part identification & traceability • Circuit boards • Linear & 2D barcodes • Paper & cardboard cutouts with laser	• Advanced photo lasering • Model making • Marquetry • Hot stamping • Award design & production • Printed signage cutout • Signs conception	• 3D signage • Displays • Embossing/debossing dies • Food molds • Furniture decoration • Models & prototypes • Award & recognition • Commemorative

Laser technologies

Gantry

LS100
Compact & affordable

LS100 EX
Extended capacities

	LS100	LS100 EX
Dimensions - LxWxH (mm)	775 x 725 x 450 (30.51" x 28.54" x 17.72")	1025 x 725 x 450 (40.35" x 28.54" x 17.72")
Lasering area (mm)	460 x 305 (18" x 12")	610 x 305 (24" x 12")
Z axis (mm)	145 (5.7")	145 (5.7")
CO2 ENERGY (W)	25	25
Sealed CO2 (W)	40 - 60	40 - 60
Fiber (W)	-	20 - 30
Edge	-	-
Standard features	Point & Shoot - Full Table autofocus - Electrical Z - Embedded dashboard - Manual Print & Cut - Laserstyle software - Direct driver - integrated exhaust compatible	
Options	Honey Comb cutting table - Cylindrical attachment - range of focal optics - Exhaust devices	
poids net (Kg)	43	70

Accessories

Range of integrated exhaust devices

Designed specifically for Gravograph systems, these exhaust units are essential lasering accessories. They enable the marking, engraving and cutting of fume generating material such as rubber, acrylic or wood within a safe and pleasant working environment. Compact - 3 stage filtration - Single point connection - Moveable, on castor wheels - Synchronised on/off with laser.

APF Laser

With a capacity of up to 195 plates, the APF is an essential accessory for high volume lasering of rating plates, tags, ID plates or labels. APF: compatible with LS100, and LS100EX. No external air compressor required.

	LE120HP / LE140HP	LE150HP	LNI900	LE190HP	ES10	ES30
Max. air flow (m³/h)	400	400	240	700	200	360
Static pressure (kPa)	10	10	22	10	4	9
Active carbon (L)	20	40	42	40	13	30
Compatible	LS100	LS100Ex	LS900	LS1000xp	with full range	

Applications

Signage

Rubber Stamps, Nameplates, Badges, Directories, Synoptic, Safety, Signs, Location & Directional, Fabricated Elements, DDA Braille Profiling, Inlay Cutting...

Personalisation

Pet Tags, Glassware, Tableware, Pens, Paper Goods, Gifts & Corporate, Gifts, Photos, Jewellery, Guns, Recognition & Awards, Sport and Trophies, Cup, Fabric, Leather...

LS900 - LS900^{XP}

Heavy duty

LS1000^{XP}

High productivity

LS900 - LS900XP	LS1000XP
1080 x 630 x 810 (42.52" x 37.2" x 31.89")	1080 x 945 x 810 (42.52" x 37.2" x 31.89")
610 x 610 (24" x 24")	1220 x 610 (48" x 24")
250 (9.84")	300 (11.81")
25	-
40 - 60 -80	60 - 80 - 100 - 150
20 - 30 -50	-
40W CO2 + 20F / 30F / 50F	-
Point & Shoot - Full Table autofocus - Electrical Z - Embedded dashboard - Manual Print & Cut - Laserstyle software - Direct driver - integrated exhaust compatible	
Honey Comb cutting table - Cylindrical attachment - range of focal optics - Exhaust devices	
180	230

Range of accessories for maximum productivity

Floating Pin Cutting Table

- Virtually eliminates back-flash effect
- Quick and easy setup
- Relocatable pins
- Suitable for all gantry lasers

Fixing

- Gravogrip mat

Honeycomb Cutting Table

- Stainless steel frame
- Excellent rigidity and durability
- Graduated alignment rulers for fast and accurate item positioning
- Minimises back-flash effect
- Easily inserted & removed from laser
- Covers the whole of the lasering area
- Available for LS100-LS100EX-LS900-**LS900XP** lasers

Cylindrical attachments

- Plug & Play installation
- Tilt mechanism allows lasering of conical shaped items
- 130 mm maximum diameter (LS100-LS100EX)
- 200 mm maximum diameter (LS900-LS900XP-LS1000XP)
- Supplied with five plastic cones of assorted sizes
- Optional concentric chuck
- Cone holding system allows lasering repeatibility

Focal lenses

- A wide range of lenses for specialist applications such as precision lasering, thick material cutting or increased Z clearance.
- Available lenses:
1.5" - 2.0" - 2.5" - 4.0"

See our complete range of laser accessories >

Identification - Cutting and engraving

Direct Part Marking, Barcodes, UID, Electrical Plates, Modeling, Prototyping, POP Displays, Front Panel, ID & Asset Management Plates, Packaging...
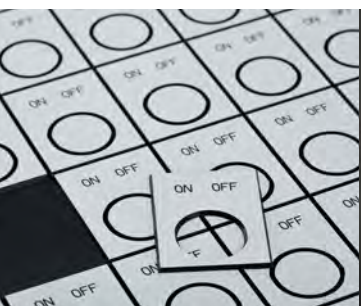
M series

m10 JEWEL

Compact, quiet and portable. For inside and outside engraving of rings and bangles.
Footprint smaller than A4 size!

m20 series

An affordable engraving system that is convenient, easy-to-operate.
M20 - Flat items engraver.
M20 PIX - Photo engraver - personalisation equipment for picture and text engraving.
M20 PEN: engraving of pens and flat items.
M20 Artfoil: hot foil transfer of text and logos.
M20 JEWEL - to engrave on rings (inside and outside), medals, chain bracelets.

	m10 JEWEL	m20 series
Dimensions - LxWxH (mm)	230 x 293 x 290 (9" x 11.5" x 11.5")	340 x 310 x 310 (13.5" x 12" x 12")
Engraving area (mm)	From Ø6 to 80	100 x 100 (3" x 3")
Z stroke (mm)	-	30 (1.18")
Net weight (kg)	6.5	10

100 series

IS200 series

IS200, for personalising small objects, badges and plaques.

IQ+

IS200

IS400 series

A flexible professional engraving machine for trophies and plaques, small signage, identification of industrial parts and light machining.

IQ+

IS400

	IS200	IS400
Dimensions - LxWxH (mm)	500 x 455 x 295 (20" x 18" x 12")	435 x 610 x 893 (17" x 24" x 35")
Engraving area (mm)	80 x 225 (3" x 9")	305 x 210 (12" x 8")
Z stroke (mm)	15 (0.59")	40 (1.57")
Net weight (kg)	20	42

1000 series

IS6000

IS7000

Three heavy-weight computerised engraving machines for cutting or machining.
The XP engraving systems are fast, accurate, and powerful.

	IS6000 **IQ+**	IS6000XP **XP**	IS7000 **IQ+**	IS7000XP **XP**
Dimensions - LxWxH (mm)	1093 x 1015 x 735 (43" x 40" x 29")	1093 x 1015 x 735 (43" x 40" x 29")	1093 x 1420 x 735 (43" x 56" x 29")	1093 x 1420 x 735 (43" x 56" x 29")
Engraving area (mm)	610 x 410 (24" x 16")	610 x 410 (24" x 16")	610 x 815 (24" x 32")	610 x 815 (24" x 32")
Z stroke (mm)	80 (3.15")	80 (3.15")	80 (3.15")	80 (3.15")
Net weight (kg)	168	180	220	230
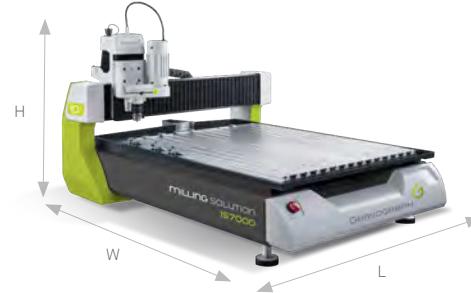
M40 series

An affordably-priced engraving system that's fast and quiet for engraving functional and technical signage.
M40 Deep Vice - Plates and bulky items engraving
M40 GIFT - M40 with tooling for cylindrical parts and glass engraving. Ideal for the retail trade and gift shops.

M40 Deep Vice / ArtFoil	M40 Gift
550 x 615 x 425 (22" x 20" x 17")	750 x 540 x 570 (29.5" x 22" x 22.5")
305 x 210 (12" x 8")	305 x 210 (12" x 8")
40 (1.57")	40 (1.57")
20	35

IS400 Volume

The future of engraving today, unique on the market.
Easy marking on a curved surface thanks to the innovative iQ+ Terrain Follower.

IQ+

900 x 615 x 840 (35.5" x 24" x 33")
305 x 210 (12" x 8")
40 (1.57")
90

IS8000

IS8000 IQ+	IS8000XP XP
1093 x 1825 x 735 (43" x 72" x 29")	1093 x 1825 x 735 (43" x 72" x 29")
610 x 1220 (24" x 48")	610 x 1220 (24" x 48")
80 (3.15")	80 (3.15")
265	280

GRAVOGRAPH

Gravograph provides an extremely wide selection of jigs and holding devices, developed for and with customers.

For flat engraving
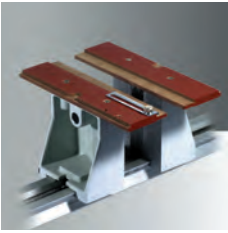
Standard celeron jigs
150 mm (5.9")
Ref. 10165

Aluminium jigs
150 mm (5.9")
Ref. 20189

Aluminium jigs
240 mm (9.5")
Ref. 21131
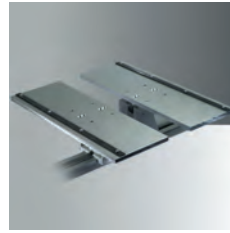
Large plate, aluminium jigs
310 x 110 mm
(12" x 4")
Ref. 20191
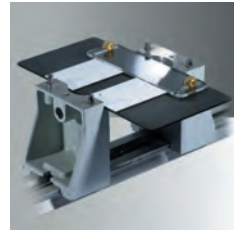
Gravofoil™ vice
Ref. 22868

Gravogrip™
Several sizes available. Please contact us for more details. See p.15.

Support table + Gravogrip™
Ref. 70997 for M20/M20XL

Support table + Gravogrip™
Ref. 71116 for IS200
Ref. 45697 for M40

For jewellery items
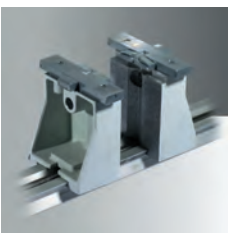
Jigs for jewellery, bracelets and medals
Ref. 28192

Watch/medal jigs fits any shape
Ref. 10182

Signet ring jigs with protection pad
Ref. 20194
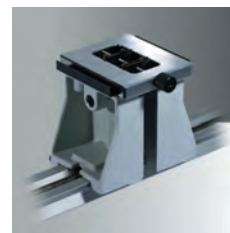
Perfect for baby identity bracelets
Ref. 22870

Jigs for rigid bangles
Ref. 51729

Jig for ring with large stone
Ref. 30050

Jigs for wedding rings
Réf. 12500

Jigs for bracelets
Réf. 77961

Jigs for bracelets and pendants
Réf. 77320

For gifts and tableware

Spectacle bow jigs
adjustable width
Ref. 20190

Cutlery jigs
with adjustable stops
Ref. 20129
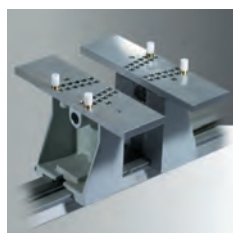
Cutlery jigs
with relocatable pins
Ref. 22370
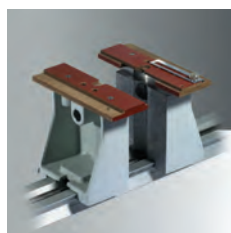
Celeron badge jigs
103 x 36 mm
(4" x 1.4")
Ref. 20128
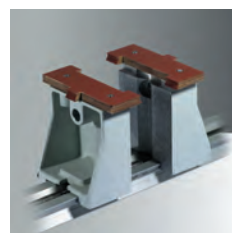
Pen & tubular object jigs
Ref. 10169
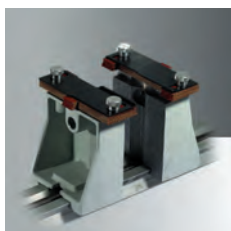
Clip pen jigs
Ref. 20842

Multigrip jigs with
sliding pins & stops
Ref. 20196
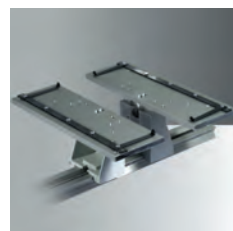
Large plate/salver jigs
with relocatable pins
Ref. 20192
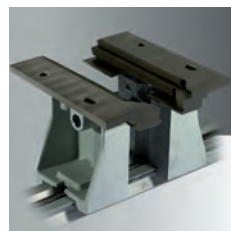
Cell phone jigs
Ref. 49510
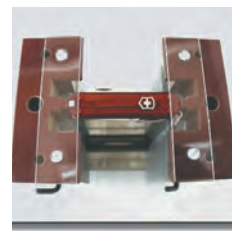
Swiss army knife jigs
Ref. 28067

Specific applications

Circuit board jigs
with locating pins
Ref. 16638
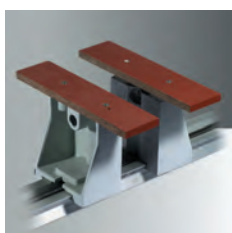
Celeron unmachined
jigs
152 x 38 mm
(6" x 1.5")
Ref. 10179
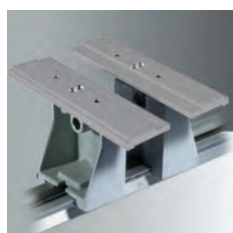
Funeral plate jigs for M20
164 x 50 mm
(6.5" x 2")
Ref. 47697

GRAVOGRAPH

Depth noses are essential to ensure perfect and constant engraving depth. Gravograph offers a wide variety of noses.

Depth noses

Steel nose
Ø 0.7 mm (.03")
Ref. 20130

Steel nose
Ø 1.5 mm (.06")
Ref. 20131
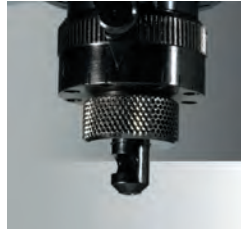
Steel nose
Ø 2.4 mm (.09")
Ref. 21755

Steel nose
Ø 2.5 mm (.1")
Ref. 20132

Teflon nose
Ø 3 mm (.12")
Ref. 20133

Steel nose
Ø 4.6 mm (.18")
Ref. 21086

Steel nose
Ø 16 mm (.63")
Ref. 20960

Vacuum noses

Ø 1.5 mm (.06")
Ref. 21674

Ø 3.3 mm (.13")
Ref. 21672

Ø 8 mm (.3")
Ref. 21673

Vacuum swivel noses

Steel swivel nose
Ø 2.5 mm (.1")
Ref. 22464

Teflon swivel nose
Ø 3.5 mm (.14")
Ref. 22481

Steel swivel nose
Ø 5 mm (.2")
Ref. 13058
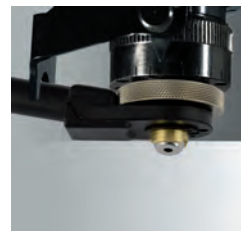
Swivel vacuum nose for collet spindle
Ø 2.5 mm (.1")
Ref. 64189
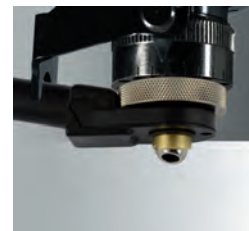
Swivel vacuum nose for collet spindle
Ø 5 mm (.2")
Ref. 64188

Long vacuum teflon noses
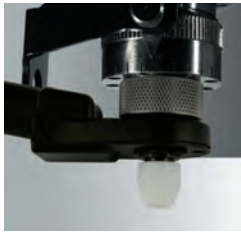
Ø 2.5 mm (.1")
Length 12 mm (.48")
Ref. 28061
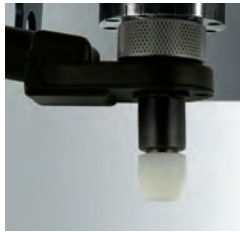
Ø 2.5 mm (.1")
Length 22 mm (.87")
Ref. 28062

Ø 2.5 mm (.1")
Length 27 mm (1.06")
Ref. 28063

Specifics

Fixed diamond nose
Ref. 22884

Prismatic swivel nose
Ref. 22885

Feather touch
Ref. M20 : 78163
Ref. M40 : 78164
Ref. IS : 78165

Steel noses:
The most commonly used noses (resistant and highly polished for minimum plate scratching).

Teflon noses:
For engraving on easily scratched materials, such as metal.

Swivel noses:
For engraving on curved surfaces (steel or teflon).

Prismatic noses:
For engraving on jewellery items such as ID bracelets or bangles.

Vacuum noses:
Same as steel nose, can be linked to a swarf extractor.

Diamond noses:
Provides better rigidity & accuracy than a non-rotating diamond cutter - mainly used for photo engraving and jewellery.

Feather touch :
This specific cutter button replace the standard cutter button. Feather touch is equipped with a spring, allowing an homogeneous result, and an object surface following during diamond non-planar engraving.
Feather touch allow to reduce engraving pressure for a feathery engraving result.

Spindles

High-speed spindle
150W

High-speed spindle
750W

High-speed spindle
1000W

	150W	750W	1000W
IS400	Option	N/A	N/A
IS 6-7-8000 IQ	Option	Option	Option
IS 6-7-8000 XP	Option	Option	Option
IS 6-7-8000 XP MILLING	N/A	N/A	Standard
max rotation speed	60k rpm	24k rpm	60k rpm
Compatibilities	Regulating nose	High torque	Pneumatic clamp

GRAVOGRAPH

Chips collector

Compact chip collector

A must-have accessory that keeps the machine clean and the job easier to engrave. Helps keep the workplace tidy.

	Compact chip collector	IS machines chip collector
Size - LxWxH (mm)	155 x 100 x 180 (6" x 4" x 7")	290 x 290 x 540 (11.4" x 11.4" x 21")
Weight (kg)	1.3	23
Max. air flow (m³/h)	20	25
Max. static pressure (kPa)	2.2	7.3
Compatible with	M20 - M40 - IS200	100 Series - 1000 Series

IS machines chip collector

Bevelling machines
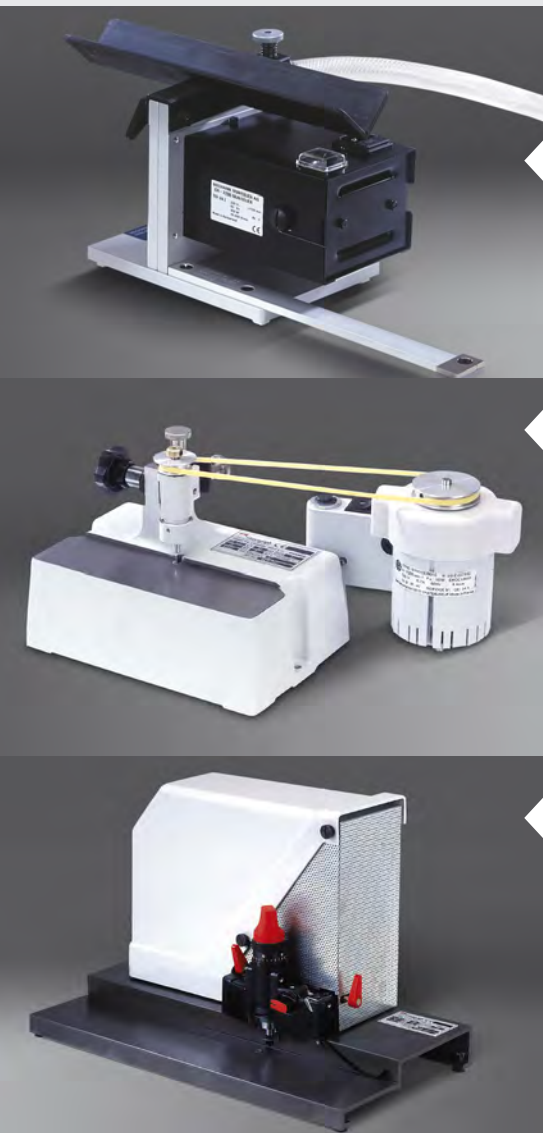
Bevelled (or "rounded") edges make plates and badges look much smarter, providing the finishing touch customers are looking for.

VA2

Only one bevelling angle (45°), but able to tackle material up to 6 mm (.236") thick + with integrated swarf extractor.

B4

The most basic version of the three machines, able to bevel up to 1.6 mm (1/16") thick material at either 45° or 90°. No swarf extractor.
Size: 310 x 160 x 120 mm (12.2" x 6.3" x 4.7").

45°   90°
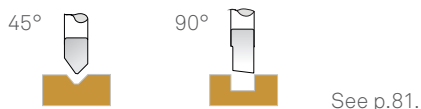
B6

Up to 3.2 mm (1/8") material thickness, integrated swarf extractor, 45° and 90° angles, adjustable in depth and height and supplied with a set of accessories for cutting rounded corners. The professional engraver's choice.
Size: 500 x 340 x 300 mm (19.7" x 13.4" x 11.8").

45°   90°
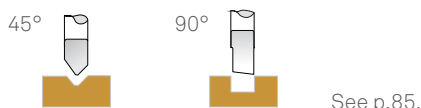
Saws

VA10 / VA11

Different versions of the safety saws are available, depending mainly on the material size and thickness customers want to cut. These saws are able to cut most materials (i.e. plastic, acrylic, brass, aluminium, etc).

		VA10	VA11	VA21/15
Size - LxWxH (mm)		830 x 550 x 250 (33" x 22" x 10")	910 x 550 x 250 (36" x 22" x 10")	1280 x 551 x 250 (51" x 22" x 10")
Max. cutting length (mm)		620 (24")	665 (26")	1030 (40")
Max. material thickness (mm)	Plastics	6.3 (.248")	7 (.276")	7 (.276")
	Gravoxal™ / Gravobrass™	4 (1/6")	5 (.20")	4 (.20")
	Gravostrat™	6.3 (.248")	7 (.276")	7 (.276")
	Aluminium profiles	-	15 (.59")	15 (.59")
Vacuum extractor		Yes	Yes	Yes

VA21/15

Guillotines

Whereas saws can cut virtually any material, guillotines are limited to certain types of thin plastic and very thin metal. The advantages of using a guillotine lie in its cutting precision and quality, speed of operation and possibility to cut very small pieces. The CSP and CSM are the same guillotine fitted with either a blade for plastic (CSP) or metal (CSM).

		CSP	CSM	CSC
Size - LxWxH (mm)		530 x 380 x 240 (21" x 15" x 9.5")	530 x 380 x 240 (21" x 15" x 9.5")	240 x 150 x 120 (9.5" x 6" x 4.5")
Max. cutting length (mm)		320 (12.6")	320 (12.6")	n/a
Max. material thickness (mm)	Plastics	2.4 (3/32")	n/a	3 (1/8")
	Metals	n/a	1 (.040")	0.8 (1/32")

The CSC is a special corner cutting guillotine, featuring in option many different corners.

R: 3.2 mm (1/8")
Blade n°1

R: 7.9 mm (5/16")
Blade n°3

R: 9.5 mm (3/8")
Blade n°4

R: 6.3 mm (1/4")
Blade n°5

R: 9.5 mm (3/8")
Blade n°6

R: 3.2 mm (1/8")
Blade n°7

R: 6.3 mm (1/4")
Blade n°8

R: 9.5 mm (3/8")
Blade n°9

max. 51.2 mm (2") ± 0.1 mm   14.5 mm (0.6")
Blade n°10

11.0 mm (.40") ± 0.2 mm (.008")
Blade n°11

14.2 mm (.55") ± 0.2 mm (.008")
Blade n°12

17.4 mm (.70") ± 0.2 mm (.008")
Blade n°13
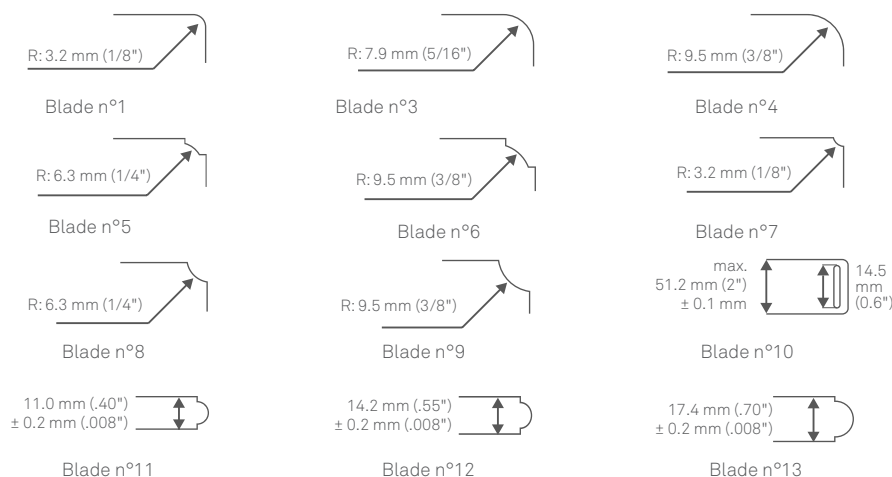
CO_2 Laser parameters for:

LS100, LS100Ex (40 W)

This document provides a base of engraving parameters to be used on Gravograph laserable materials. They are indicative values that can be subject to modification, that are recommended by professional engravers and have been tested and verified for the LS100Ex & LS100 40 W.

Plastics Laser	Power %	Speed %	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
Gravoply™ Laser	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	
	80%	30%	1	-	Before	yes	Cutting	500	0.8mm (.030")	
	100%	28%	1	-	Before	yes	Cutting	500	1.3mm (.050")	
Gravoply™ Ultra	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	
	70%	40%	1	-	Before	yes	Cutting	500	0.5mm (.020")	
	100%	25%	1	-	Before	yes	Cutting	500	1.6mm (1/16")	
	100%	10%	1	-	Before	yes	Cutting	500	2.4mm (3/32")	
Gravoply™ 2	10%	100%	1	-	Before	no	Vector	500	-	
	50%	100%	1	-	Before	no	Raster	500	-	
Gravoglas™ 1	80%	40%	1	-	Before	no	Vector	500	-	Subsurface engraving
	80%	40%	1	3.0mm (1/8")	Before	no	Raster	500	-	Subsurface engraving
	100%	18%	1	-	Before	yes	Cutting	500	1.5mm (1/16")	Keep the plastic film on
	100%	10%	1	-	Before	yes	Cutting	500	3.0mm (1/8")	Keep the plastic film on
	100%	5%	1	-	Before	yes	Cutting	500	5.0mm (.20")	Keep the plastic film on
Acrylic	30%	100%	1	-	Before	no	Vector	500	-	
	60%	100%	1	-	Before	no	Raster	500	-	
	100%	8%	1	-	Before	yes	Cutting	500	3.0mm (1/8")	
	100%	5%	1	-	Before	yes	Cutting	500	5.0mm (.20")	
	100%	1%	1	-	Before	yes	Cutting	500	10mm (.40")	
Gravotac™ Exterior	50%	20%	1	-	Before	yes	Cutting	500	0.8mm (.030")	
	100%	25%	1	-	Before	yes	Cutting	500	1.6mm (1/16")	
Flexilase™	10%	100%	1	-	Before	no	Vector	500	-	
	30%	100%	1	-	Before	no	Raster	500	-	Gravogrip advised
	100%	5%	1	-	Before	yes	Cutting	500	0.25mm (.01")	
Stickalase™	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	Gravogrip advised
	20%	30%	1	-	Before	yes	Cutting	500	0.09mm (.004")	
Gravostrat™	50%	60%	1	-	Before	no	Vector	500	-	
	100%	60%	1	-	Before	no	Raster	500	-	
Rubbalase™	100%	20%	1	-1.5mm (-1/16")	Before	no	Vector	500	-	
	100%	20%	1	-1.5mm (-1/16")	Before	yes	Raster	500	-	
	100%	5%	1		Before	yes	Cutting	500	2.2mm (.087")	

The purpose of this document is to help each engraver get an idea as to how to engrave on Gravograph laserable materials.

The parameters are sorted by product range. Every material can have up to 3 different types of engraving process:
- Vector, for lightweight linear tracing
- Raster, for heavy marking
- Cutting

Some materials may not be engraved with a certain type of engraving process: if the specific type is not in the grid of the material, then it's most likely that it we do not recommend this engraving method on the indicated material.

Metallics Laser	Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
Gravolase™ Metallics	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	
	70%	40%	1	-	Before	yes	Cutting	500	0.5mm (.020")	
	100%	25%	1	-	Before	yes	Cutting	500	1.6mm (1/16")	
Metallex™	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	All Metallex™ material surfaces
Gravoxal™	30%	100%	1	-	Before	no	Vector	500	-	All Gravoxal™ material surfaces
	50%	100%	1	-	Before	no	Raster	500	-	All Gravoxal™ material surfaces
AlumaMark®	30%	50%	1	-	Before	no	Vector	500	-	
	30%	80%	1	-	Before	no	Raster	500	-	
DuraBlack®	20%	80%	1	-	Before	no	Raster	500	-	

TECH TIPS

Floating Pin Table Cutting - When using a floating pin table, place an aluminum plate under the strips to avoid laser reflection to prevent engraving under the material.
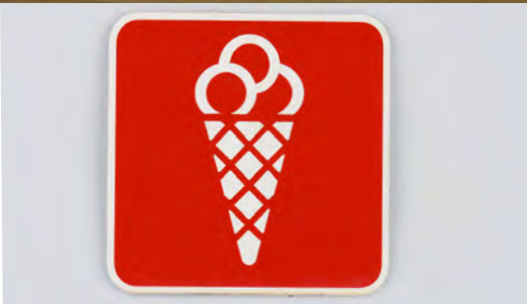
Gravogrip™ Raster - Use Gravogrip™ when engraving on thin materials as they can have uneven surfaces.
- Avoid using too much power when engraving to prevent damage to the Gravogrip™ plate.

Nb : in case of unexpected behavior during the engraving process, please refer to the machine's User Manual for troubleshooting.

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Global reach

A global leader in the engraving and permanent marking industry, Gravograph's many subsidiaries and distributors/agents around the world offer a complete and worldwide engraving solution to their customers, coupled with unparalleled customer service and support.

◎ *Development, production and distribution platforms*

● *Distribution and service centres*

Algeria	Denmark	Korea	Singapore
Argentina	Ecuador	Luxembourg	Slovenia
Australia	Egypt	Malaysia	South Africa
Austria	Finland	Mexico	Spain
Benelux	France	Norway	Sweden
Bolivia	Germany	Peru	Switzerland
Brazil	Greece	Philippines	Thailand
Bulgaria	Hungary	Poland	Turkey
Canada	India	Portugal	Ukraine
Chile	Indonesia	Qatar	United Arab Emirates
China	Ireland	Romania	United Kingdom
Colombia	Israel	Russia	U.S.A
Croatia	Italy	Saudi Arabia	Venezuela
Czech Republic	Japan	Serbia	Vietnam

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